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## Editorial

Information Management and Business Review (IMBR) provides a unique platform to scholars around the world to share their knowledge and publish research work in the fields of information management, business, management and related disciplines. The work submitted for publication consideration in IMBR should address empirical and theoretical developments in the subjects related to scope of the journal in particular and allied theories and practices in general. Scope of IMBR includes: subjects of finance, accounting, auditing, cost & management accounting, financial psychology, financial literacy, marketing, information management, human resource management, knowledge management, innovation, change management, enterprise management, e-commerce and information system. Author(s) should declare that work submitted to the journal is original, not under consideration for publication by another journal, and that all listed authors approve its submission to IMBR. It is IMBR policy to welcome submissions for consideration, which are original, and not under consideration for publication by another journal at the same time. Author (s) can submit: Research Paper, Conceptual Paper, Case Studies and Book Review. The current issue of IMBR comprises of papers of scholars from Thailand, Malaysia, Mexico and Pakistan. Project evaluation trend in Thailand, examination of factors affecting youths' entrepreneurial intention, factorial validation of a corporate social responsibility perception scale, organizational intelligence & employee performance, customer retention framework and role overload, self- efficacy, locus of control & job performance are some of the major practices and concepts examined in these studies. Journal received research submission related to all aspects of major themes and tracks. All the submitted papers were first assessed by the editorial team for relevance and originality of the work and blindly peer reviewed by the external reviewers depending on the subject matter of the paper. After the rigorous peer-review process, the submitted papers were selected based on originality, significance, and clarity of the purpose. Current issue will therefore be a unique offer, where scholars will be able to appreciate the latest results in their field of expertise, and to acquire additional knowledge in other relevant fields.

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## **PAPERS**

## Project Evaluation Trend in Thailand Based on Critical Factors Index

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**Abstract:** This paper aims to investigate the recent trend of the use of project evaluation techniques based on opinions of financial managers in Thai firms. The research uses a questionnaire built on a Sense and Respond (S&R) method called Critical Factors Index (CFI). It examines the trend using such CFI terms as importance, experiences, expectations, gaps, deviations and direction of development. The results show several critical areas for improvement needed including customer perspective and the traditional use of payback technique for project evaluation in the firm. The results also show that the needed improvement is more critical in small firms than in medium and large firms. The results further show that the improvement needed is more critical for merchandizing firms than for manufacturing and service firms.

**Keywords:** *Financial measure, Non-Financial measure, Critical Factors Index, service, manufacturing, merchandize*

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### 1. Introduction

The primary goal of the corporation is stockholders' wealth maximization or maximizing the price of the firm's common stock (Chansa-ngavej, 2009). Stock price maximization is an important goal for most corporations (Peterson & Fabozzi, 2002). Financial managers who make the actual decision are interested in knowledge in the areas of (1) money and capital markets; (2) investment; (3) financial management, all of which involve decisions within firms. It is well-known that apart from financial considerations, most firms also take non-financial factors into consideration. Financial managers need all sorts of information before selecting the appropriate project(s). Most investment decisions involve large amount of capital and long time period (Seitz and Ellison, 1990). Firms therefore have to take special care making the right investment decisions. Financial-based capital budgeting techniques have been found to be the standard tool that helps financial managers to make decisions (Ryan, 2002; Schall, Sundem and Geijsbeek Jr, 1978). However, since project evaluation typically involves both financial and non-financial measures to aid in deciding the best project(s), there have been several research works that emphasize the importance of both financial and non-financial techniques. Chen (2008), for example, found that most firms evaluate projects using both financial and non-financial measures and attempted to examine the circumstances in which the use of discounted cash flow (DCF) methods may or may not be beneficial.

Non-financial measures are deemed useful mainly as an aid to "traditional" financial-based capital budgeting tools. In a survey of 77 Malaysian firms, Ong and Teh (2009) found that firms mostly used financial measures including capital budgeting techniques namely Net Present Value (NPV), Internal Rate of Return (IRR), Profitability Index (PI), Payback Period (PB), Non-financial measures are found to be used mostly by larger firms. However, there is a recent trend toward the use of both financial and non-financial measures for project evaluation. Nadler and Takala, (2010) applied and validated the tool based on the Sense and Respond (S&R) method called Critical Factor Index (CFI) to indicate the relative critical importance of attributes, based on experience and expectation of decision makers. This paper uses the CFI to consider the relative importance or criticality of project evaluation techniques, both financial and non-financial, contingent on such factors as the type of firm, firm's age and firm's size. Firms in Thailand are known to use project evaluation techniques widely (Champathed & Chansa-ngavej, 2015). It is of primary interest in this paper to find out which techniques, financial or non-financial, is considered of critical importance and need immediate attention from the firm.

### 2. Literature Review

In this study, we will use CFI, Financial and Non-financial measures.

**Financial Measurement:** Financial managers have used financial-based project evaluation techniques for the past five or six decades. Financial measurement has retained its importance in investment evaluation and decision making. Techniques typically used in the financial measurement category are payback period (PB), net present value (NPV), internal rate of return (IRR), and profitability index (PI).

**Payback period:** This measure is still used as primary decision criteria for many firms. The technique is widely understood. The payback period shows the number of years it takes for benefits from the project equal the money invested. It is also the principal capital budgeting criterion for many firms for some time. Its popularity may be explained by the ease to explain the rule to staff members with no background in finance: the shorter time it takes to recover the original investment, the better. At the very least, payback period is used primarily as supplementary information.

**Net Present Value:** This method is the most typical of discounted cash flow (DCF) techniques. Following the wealth maximization goal, a project should be rejected if the NPV of its cash flows is negative. Whereas among various projects with positive NPVs, the one with the highest NPV should be chosen. According to Graham and Harvey (2001) NPV has been more widely used in the past forty years or so.

**Internal Rate of Return:** The decision rule for the Internal Rate of Return is to invest in a project if it provides a return greater than the cost of capital. The cost of capital, in the context of the IRR, is a hurdle rate, the minimum acceptable rate of return. According to Champathed & Chansa-ngavej (2015), most firms in Thailand use IRR to evaluate projects.

**Profitability Index:** PI is the ratio of the present value of benefits and the present value of costs. Often referred to as the benefit-cost ratio, it tells how much value we get for investment. The decision rule is to accept an investment project if PI is greater than one.

**Non-Financial Measurement:** While financial measurements have been advocated for capital investment decision making for several decades, non-financial measurement has not been similarly advocated by financial theorists. On the other hand it could be argued that non-financial measures have been in use from time immemorial owing to their comparative simplicity. Financial managers have in practice often used this type of measurement, along with financial measurement to evaluate projects (Champathed & Chansa-ngavej, 2012). Non-financial measurement has also been used in strategic role as performance indicators for strategy implementation and the adoption of non-financial indicators has begun to be advocated as theoretically correct measures (Chen, 2008). According to Ong and Teh (2009), non-financial indicators have been used in performance measurement systems within international organizations. Firms of different sizes and types of industries have increasingly implemented non-financial performance measures. Several studies found that most firms use both financial and non-financial techniques to evaluate projects. Chen (2008) stated that discounted cash flow methods were not always appropriate. The firms have been found to use both financial and non-financial measures not only in creating a firm's value or in improving perceptions of the firm. Large companies are significantly more likely to rely on both financial and non-financial performance measures than smaller companies (Ong & Teh, 2009). The reason may be that larger companies have more resources and expertise to invest, collect and analyze the results. The findings further enshrine the use of financial and non-financial performance measures in creating a firm's value or in improving perceptions of a firm's credibility.

Other studies advocate non-financial measures as the tool for evaluating projects due to short-term orientation of the financial markets. According to Eccles (1991), the solution to the problem of long-term financial uncertainty is for companies to place more emphasis on nonfinancial measures. On the other hand, Ong & Teh (2009) found that company use of non-financial measures in the determination of business strategy has not yet become a standard practice. According to Baiman & Baldenius (2009), while financial measurement is reliable, it has its problems of time lags and the question of verifiability of certain financial variables. It may be concluded that the trend is for the use of financial measures together with non-financial measures for project evaluation. At the firm level, performance measurement approaches combining non-financial measurement with financial measurement have been made popular with the introduction of balanced scorecard (Kaplan and Norton, 1992). Balanced scorecard posits four related perspectives that drive the performance of the firm, namely learning and growth, internal operations efficiency, customer or marketing orientation, and financial performance. Essentially, BSC therefore advocates the use of three aspects of non-financial measures in combination with the traditional use of financial measures for the performance of the firm. Chareonsuk and Chansa-ngavej (2010) provide an empirical evidence of the linkages

based on a survey of Thai firms. In the present research work, the three non-financial perspectives in the BSC framework are studied as the non-financial measures at the project evaluation level, together with the usual financial measures for project evaluation, namely PB, NPV, IRR, and PI.

**Critical factor indicator (CFI):** Ranta and Takala (2007) and Nadler and Takala (2010) report the development and validation of Critical Factor Index (CFI) as a fast and reliable tool for identifying which attribute of a process is of critical importance. The method is based on actual experience and ideal expectation of the decision maker. Its development follows the concept of Sense and Respond (Bradley and Nolan, 1998). CFI helps identify critical areas which should be developed, and which should not. It takes the standard deviations of actual experience and ideal expectation into account as well as indexes for measuring importance, the gap between actual experience and ideal expectation, and the direction of future development. As originally formulated, the smaller the index, the more critical the attribute becomes. Large values of CFI, on the other hand, show that any conclusion about the attributes may be ambiguous due perhaps to the large values of standard deviations among the respondents.

$$CFI = \frac{SD \text{ of expectation} * SD \text{ of experience}}{\text{Importance index} * \text{Gap index} * \text{Direction of development index}}$$

### 3. Methodology

This research work seeks opinions of financial managers via a questionnaire survey via mail, e-mail, and website. The questionnaire was distributed to a total of 1,000 firms in Thailand. The number of respondents was 135 firms. The research covers service firms, manufacturing firms and merchandizing firms, and firms of small, medium and large size. The first part of the questionnaire consists of firm's characteristics such as type of firms, size of firms. The second part covers the use of financial and non-financial measures for project evaluation in the firm. Non-financial measures included in the questionnaire are selected from the list of frequently used performance indicators reported by Dossi and Patelli (2010). Four financial measures for investment project evaluation are covered in the present research, namely, payback period (denoted by FN1), net present value (FN2), internal rate of return (FN3), and profitability index (FN4). Non-financial perspectives covered are internal operations efficiency perspective, represented by three measures, namely process productivity rate (IN5), product/services quality (IN6), and internal processes total costs (IN7). The learning and growth perspective consists of three non-financial measures namely people training expenses (LG8), people productivity rate (LG9), and employee turnover (LG10). The customer orientation perspective consists of three non-financial measures namely customer satisfaction (CM11), sales volume trend (CM12), and market coverage indicators (CM13).

### 4. Results and Discussion

CFIs are calculated based on the opinion survey of financial managers. Results are shown in Fig. 1 to Fig. 7, with red color (dark shade in black and white) representing the measures considered highly critical by the respondents, green color (grey shade in black and white) representing the measures with normal level of criticality, and yellow color (light shade in black and white) representing measures with ambiguous responses since the standard deviations of the questionnaire survey responses are likely to be high, meaning that the opinions of respondents do not concur well.



**Figure 1: Critical factors indexes for the overall firms**

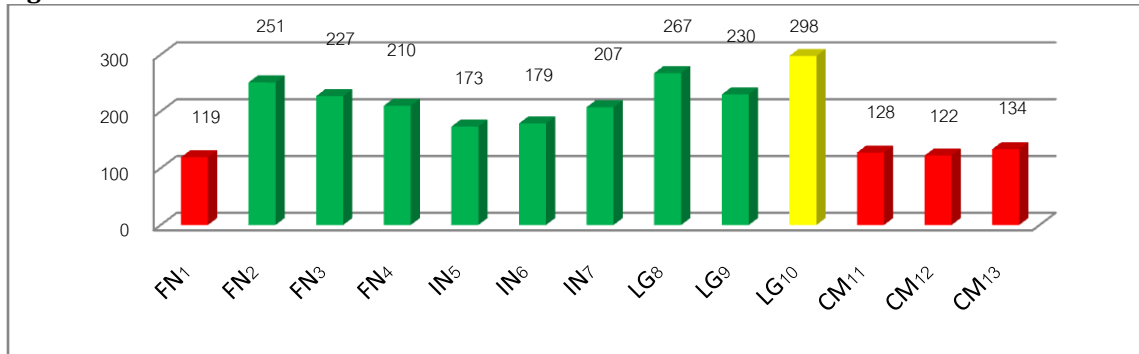


Fig. 1 shows the CFIs for the overall respondent firms. Measures found most critical are payback period, a financial measure (FN1), and the three non-financial measures in the customer orientation perspective namely customer satisfaction (CM11), sales volume trend (CM12), and market coverage indicators (CM13). Employee turnover (LG10) has the highest value among all the measures, which could mean the opinions vary widely among the respondents.

**Figure 2: Critical factors indexes for small firms**

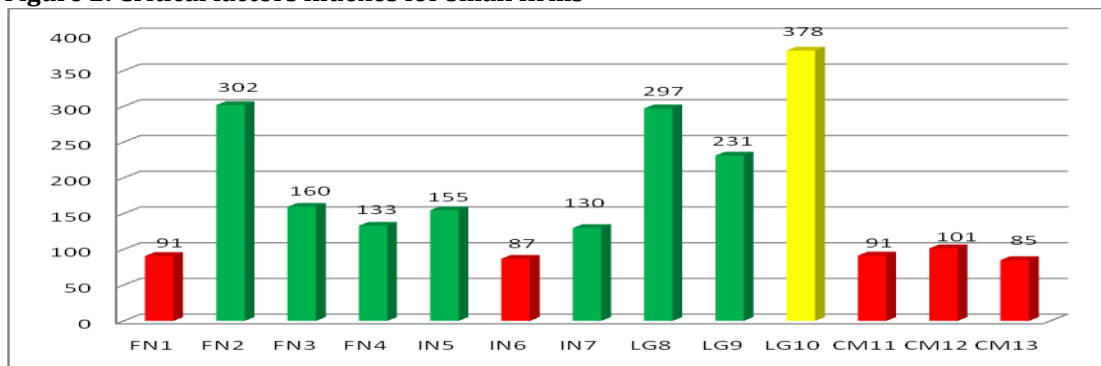
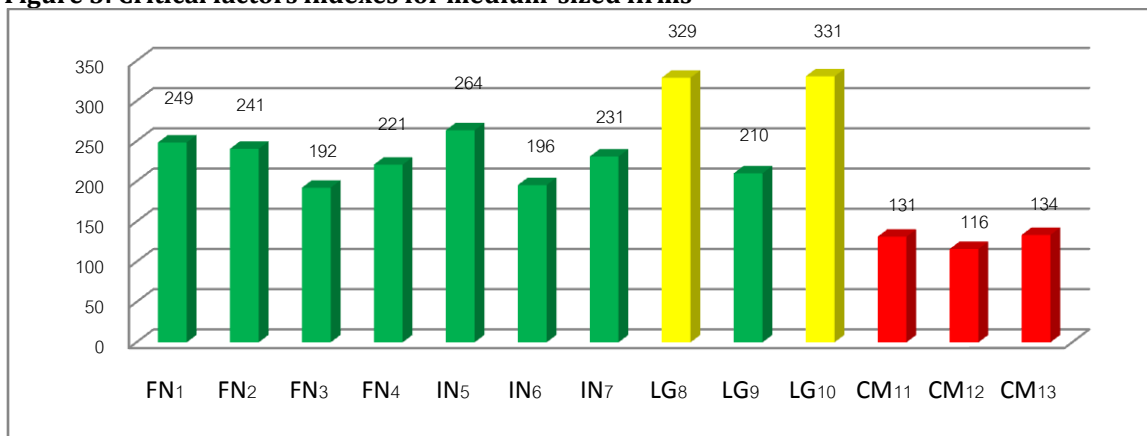


Fig. 2 shows the CFIs for small firms. The critical measures among these firms are found to be payback period (FN1), product/services quality (IN6) and all three non-financial customer orientation measures, namely customer satisfaction (CM11), sales volume trend (CM12), and market coverage indicators (CM13). Employee turnover (LG10) again turns out to be ambiguous for small firms, just like the result found for the overall firms in Fig. 1.

**Figure 3: Critical factors indexes for medium-sized firms**



**Figure 4: Critical factors indexes for large firms**

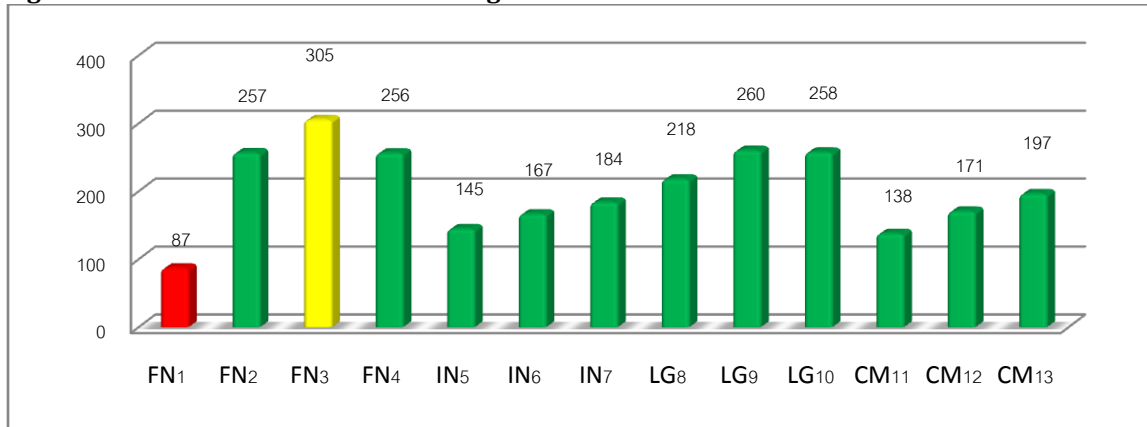


Fig. 3 shows the CFIs for medium-sized firms. The critical indexes for the medium-sized firms are found to be the three customer orientation measures, namely customer satisfaction (CM11), sales volume trend (CM12), and market coverage indicators (CM13). Two of the non-financial learning and growth measures are ambiguous, namely people training expenses (LG8) and employee turnover (LG10). Fig. 4 shows the CFIs for large firms. The most critical measure for large firms is found to be the financial measure of payback period (FN1). By contrast, the result for another financial measure, namely internal rate of return (FN3) is ambiguous as shown in yellow in Fig. 4.

**Figure 5: Critical factors indexes for service firms**

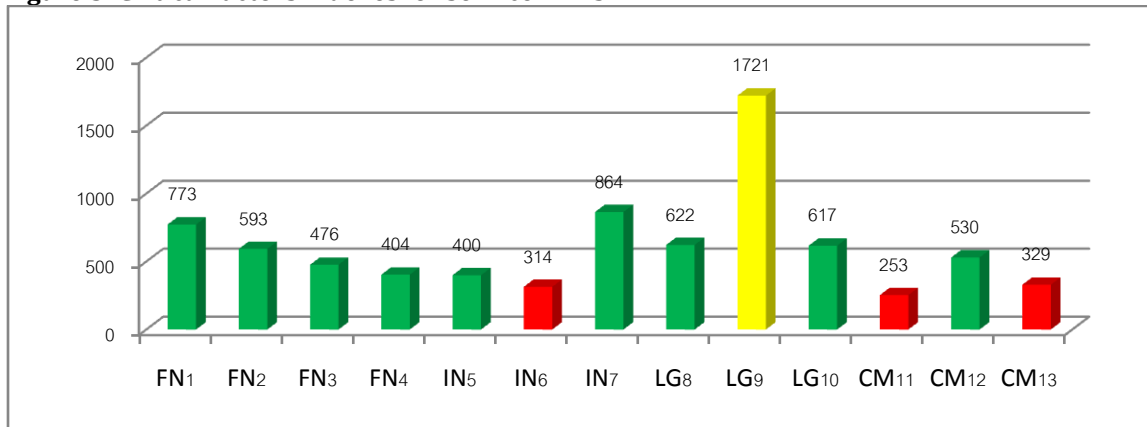


Fig. 5 shows that the CFIs for service firms. All the critical measures for these firms are found to be non-financial ones, namely product/service quality (IN6) in the internal operations efficiency perspective, and customer satisfaction (CM11) and market coverage indicators (CM13) in the customer orientation perspective. The CFI result for people productivity measure (LG9) in the learning and growth perspective is ambiguous, perhaps indicating that service firm respondents do not seem to concur well in their opinion about this particular measure.

**Figure 6: Critical factors index for manufacturing firms**

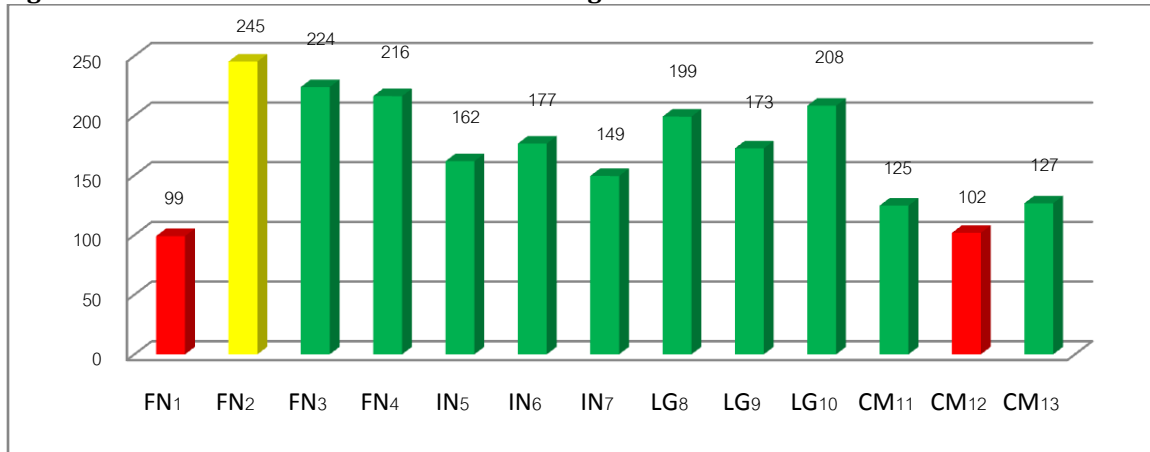


Fig. 6 shows the CFIs for manufacturing firm respondents. It is found that two measures are critical, namely payback period (FN1) in the financial measure and sales volume trend (CM12) in the non-financial customer orientation perspective. It is interesting to note that for the manufacturing firms, the CFI result for the financial measure of net present value (FN2) turns out to be ambiguous.

**Figure 7: Critical factors indexes for merchandizing firms**

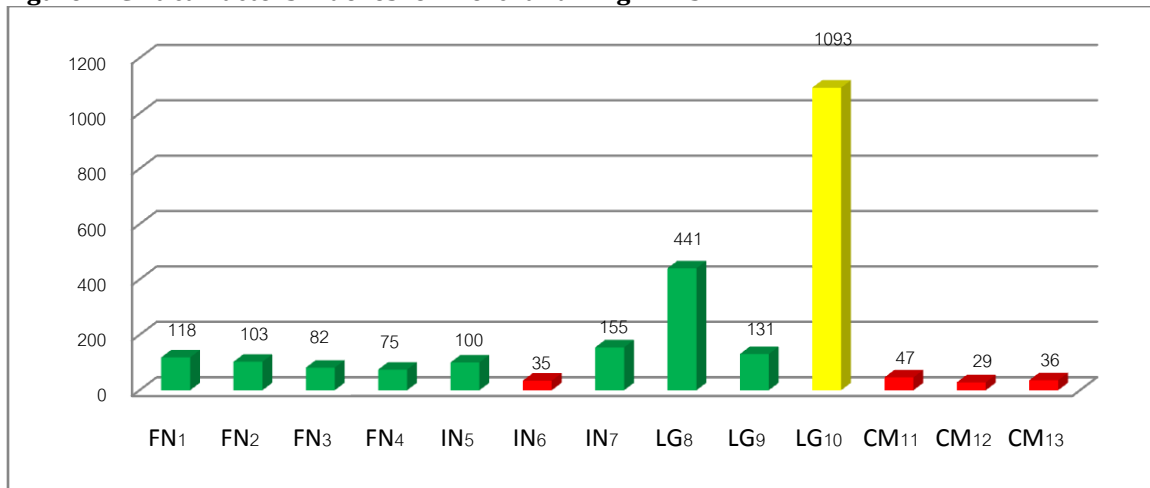


Fig. 7 shows the CFIs for merchandizing firms. Four non-financial measures are found to be critical, namely product/services quality in the internal operations efficiency perspective, and all the three customer orientation perspective which are customer satisfaction (CM11), sales volume trend (CM12), and market coverage indicators (CM13). For merchandizing firms, the CFI result for employee turnover (LG10) is ambiguous.

**Discussion:** Critical measures used for evaluating investment projects by Thai firms are shown in Table 1.

**Table 1: Critical measures for project evaluation by Thai firms**

Code	Measure	Over all	Small Firms	Medium-sized Firms	Large Firms	Service Firms	Manu- facturing Firms	Merchan- dizing Firms
FN1	Payback period	√	√				√	
IN6	Product/services quality		√		√	√		√
CM11	Customer satisfaction	√	√	√	√	√		√
CM12	Sales volume trend	√	√	√			√	√
CM13	Market coverage indicators	√	√	√	√	√		√

The only critical financial measure listed in Table 1 is payback period, which is listed under overall respondents, small firms, and manufacturing firms. According to Peterson and Fabozzi (2002), payback period is still used as the primary decision criterion for some firms owing to its intuitive appeal which tells the number of years until the cumulative cash benefits equal the money invested. Our results tend to confirm the observation made by Scheepers (2003) that payback period would be more important for a small company, but less so for a large company. For non-financial measures, product/services quality stands out as the only measure in the internal operations efficiency perspective. It is a critical measure for small firms as well as large firms, among service firms as well as merchandizing firms. It appears therefore that the respondents concur about the importance of product/services quality. Among the non-financial measures, customer orientation perspective is prominently listed with all three of its measures listed in Table 1. Customer satisfaction and market coverage indicators are found to be critical for overall firms as well as for small firms, medium-sized firms, and large firms, service firms and merchandizing firms. Sales volume trend is critical tools for overall firms as well as small firms and medium-sized firms, manufacturing firms and merchandizing firms.

## 5. Conclusion

Many firms have used quantitative measures to evaluate the projects more widely for decades. According to Chen (2008), more and more firms now use both financial and non-financial measurement for evaluating projects. Thai firms also tend to use both types of measures for project evaluation (Champhed and Chansangavej, 2015). The present work shows the critical areas based on an opinion survey of financial managers. Customer orientation perspective is the found to be focal point in non-financial measures. Small firms and merchandize firm should be improved. According to Ong and Teh (2008), the recent trend is for firms to use non-financial measurement. Our results confirm that observation, with particular emphasis on non-financial measures in the customer orientation perspective. The expectation and experience of financial managers support the trend of the use of non-financial measurement.

## 6. Recommendations

Measurement evaluates projects in the firms that are still important. The CFI help to find the tools that should be improved. It was expectation and experience's financial manager. Further development Nadler and Takala (2010) developed CFI to BCFI (balanced critical factor index), it can easily be identified which attributes compared to the standard BCFI.

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## Examination of Factors Affecting Youths' Entrepreneurial Intention: A Cross-Sectional Study

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**Abstract:** This study aims to examine the predictive effect of enterprise education, perceived social norms, entrepreneurial motivations, perceived structural support and innovativeness on entrepreneurial intention. A total of 150 useable responses were collected among young people living in the capital of Maldives, Male'. A cross-sectional quantitative survey was carried out by using a structured questionnaire. A relevant statistical analytical such as regression analysis was used to test the hypotheses set forth in this study. The descriptive results showed that male respondent is slightly more than female respondent which is consistent with the 2014 census of Maldives showing male population in the country is slightly higher than female. The majority of the respondents participated in this survey are from the age group of 18-22 years old. The main finding of the study showed enterprise education, perceived social norms, entrepreneurial motivations and innovativeness have a positive and significant relationship towards entrepreneurial intention. However, perceived structural support has no significant relationship towards entrepreneurial intention. In this study it was also found that enterprise education was the most significant predictor of entrepreneurial intention followed by entrepreneurial motivation, innovativeness and perceived social norms. This finding makes a considerable contribution to the existing literature on factors influencing entrepreneurial intentions among youth in Maldives. The implication and limitations of the study are also discussed.

**Keywords:** *Enterprise education, Perceived social norms, Perceived structural support, Entrepreneurial Motivation, Innovativeness, Entrepreneurial intention*

### 1. Introduction

Entrepreneurship is defined as "the activities involved in owning and managing a business." Creation of such new business has been the main reason for the success in many developing economies such as Swaziland, Bangladesh, Bhutan and Maldives (Beaugrand, 2004). Dash and Kaur (2012) define youth as a person between 18-35 years of age. The belief that entrepreneurship and youth entrepreneurship are interchangeable has led to some researchers focusing on "entrepreneurship" as a general concept. Basically, youth entrepreneurship plays a significant role in alleviating youth unemployment and accelerating economic development through their input of new ideas for profitable ventures. The future working environment will depend on the creativity and individuality of the young (Henderson and Robertson, 2000). As a result, youth entrepreneurship has gained the interest of researchers in determining the factors that influence their entrepreneurial intentions. According to the studies conducted on youth entrepreneurship, young people consider starting their own businesses mainly due to the freedom of autonomy (Mitra, Abubakar and Sagagi, 2011). Krueger (2008) believes that intentions lead to behaviour. Hence, a high intention among youth to start their own business will ensure future ventures. Therefore, it is important to analyze the factors that influence the intention of starting own business so that competitive young entrepreneurs can be developed (Schwarz et al., 2009). A number of studies have been done to analyze different factors that influence entrepreneurial intention. Most of these studies analyzed social norms, attitudes and behavioral controls as the main factors. However, recent studies started to include more variables to broaden factors that influence entrepreneurial intentions. Luthje and Frankle (2003) combined both personality traits as well as external environmental factors which enhanced the previous studies done on this topic. Later Schwarz et al. (2009) included education as a variable in his studies on entrepreneurial intention.

Although, most of these studies were conducted on a western perspective, it should be noted that entrepreneurial intentions vary sharply from country to country (Schoof, 2006). Moreover, despite the importance of youth entrepreneurship, this field is constrained by a severe lack of sound evidence (Schoof, 2006). There is also little understanding of the factors that affect young people to become entrepreneurs (Souitaris, Zerbinati and Al-Laham, 2007). Thus, youth entrepreneurship remains as a topic that lacks broad

research even though it is recognized as an important aspect to the economic development. According to Baporikar (2014), the main reason for the increase in importance given to youth entrepreneurship is due to the rise in the number of unemployed youth. In Maldives, the rate of unemployed youth in 2013 is 26.5% and the number is on the rise; hence youth entrepreneurship is believed can bring a positive impact on this matter (Quandl, 2015). Basically, youth entrepreneurship gained the attention of Maldivians with the launch of “Get Set-Maldives Youth Entrepreneurship Program” in 2014. Under this program, MVR200 million (US\$12.9 million) worth of loans will be provided to youth who wants to start their own business (Naish, 2014). The main reason for this initiative was to reduce the number of unemployed youth taking the road of crimes. However, the success of the programme depends on the level of entrepreneurial intention among youth. Koe et al. (2012) mentioned that entrepreneurial intention determinants vary between cultures and countries. There are even some contrasting views that too much emphasis is given to developed nations when studying entrepreneurial intention (Eijdenberg and Masurel, 2013). Therefore, this study aims to investigate factors that influence entrepreneurial intention of young people in developing country. Since youth entrepreneurship is particularly a new concept for Maldivians (Villarino, 2015), this study will investigate whether enterprise educations, perceived social norms, perceived structural support, entrepreneurial motivations, innovativeness influence entrepreneurial intention among youth in Maldives.

## 2. Literature Review

Generally, Mobaraki and Zare (2012) defined intentions as the proximal cognitive state that is temporally and causally prior to the intended behaviour. Specifically, Thompson (2009) defines entrepreneurial intention as a self-acknowledged conviction by a person that they intend to set up a new business venture and consciously plan to do so at some point in the future. Other researchers define entrepreneurial intention as the readiness to start a business, with risk-taking propensity, locus of control and attitudes towards self-employment as predictors (Luthje and Frankle, 2003). An individual’s intention towards entrepreneurship depends on the desirability of the action such as the attractiveness of becoming an entrepreneur and the level of confidence that the action will be realized. Moreover, the intention can be formed by the people’s capability to act according to their own decision (Solesvik, Westhead and Matlay, 2014). Luthje and Frankle (2003) carried out studies to investigate the entrepreneurial intention. They revealed that attitude towards self-employment is positively related with contextual factors (perceived support); internal factors (motivation) and enterprise education. Therefore, it can be said that the individuals, in this case the youth in Maldives, should be given enough support, motivation and required skills to enhance their attitude towards starting up own business rather than fully depending on a job in this economy where it is hard to get one.

Educational institutes have improved the business curriculums aimed at increasing the awareness on entrepreneurship and developing business skills, creativity, imagination and mind set to support self-employment activities (Frank, 2007). Studies conducted on enterprise education showed that individuals who are exposed to knowledge about starting-up businesses are more likely to take up self-employment opportunities (Frank, 2007). Therefore, it is essential to provide entrepreneurship education and skill development opportunities in order to foster intention for entrepreneurial activities. A study by Wang and Wong (2004) indicated that lack of entrepreneurship knowledge from academic institutions acted as barrier for many students from starting their own business. Other researchers came to the same conclusion that educational institutes help in fostering entrepreneurial traits among individuals by developing their innovation skills (Ibrahim and Soufani, 2002). According to a report by Organization and Economic Cooperation & Development (OECD) in 2013, the effect of any kind of entrepreneurship education on the development of skills varies among different cultures. It showed that the individual’s entrepreneurial intention is fostered through education in several countries for examples in Brazil, India and Portugal. However, in countries such as Japan and UK have a low percent of individuals who believe that education can foster entrepreneurship. Thus, it can be said that the role of enterprise education and how it affects entrepreneurial intention differs across countries. Global Education Initiative (GEI) report by World Economic Forum (2009) stated that entrepreneurship education significantly influences attitudes, skills and culture. In addition, teaching these attitudes and behaviours from youth until adulthood is essential for entrepreneurial growth. Therefore, it is important to examine whether education influences entrepreneurial intention among young Maldivians.

Social norms are the individual's belief about the pressures from society and close people in making a certain decision. In some countries entrepreneurship is encouraged while in others it is not seen as a good career choice (Global Entrepreneurship Monitor, 2014). According to Solesvik (2013), the opinions of important people such as family, friends, teachers and the society as a whole shape the entrepreneurial intentions of a person. These could be the start-up problems arising from family disapproval or social disapproval towards entrepreneurship. Engle, Schlaegel and Delanoe (2011) conducted a research about the social norms affecting entrepreneurship intention among 14 different countries. The result showed that three factors under social group, family, friends and role models have a positive influence on the entrepreneurial intent. The study focused on the degree of encouragement from these social groups and the importance of their opinion on the decision to start own business. Thus, it is also important to conduct similar study among young Maldivian. Mueller and Thomas (2001) evaluated that the valuation of a career choice in the society has a significant impact on the engagement in that career. Other studies also exerted that socio-cultural values, attitudes and perception towards entrepreneurial activities led to the development of own venture creations (Vaillant and Lafuente, 2007). Social predictors of entrepreneurial intention generally focuses on desirability of entrepreneurship as a career choice, level of respect given by society for entrepreneurs and barriers associated with such a decision (Abebe, 2012).

Perceived structural support is mainly influenced by the economic and political mechanisms that form opportunities and barriers to the entrepreneurs (Turker and Selcuk, 2009). These include elements such as the opportunity to start-up business, accessibility to finance, state laws and lastly encouragement from public, private and non-governmental organizations. Schoof (2006) carried out studies on the perceived structural support as a factor influencing the youth entrepreneurship. These studies revealed that access to finance, administrative, regulatory framework and business assistance acts as barriers in starting own business. The encouragement from the economy and government is significant in shaping the perception of youth towards self-employment. Favourable support from the government towards financial access and regulatory framework will enhance youth entrepreneurship and develop the economy. Delanoë (2013) categorizes the support as "hard" when it comes in the form of loan guarantee schemes and "soft" when it is advisory assistance. These support forms can positively influence the youth in setting up their own business. The high financial accessibility will encourage them to start enterprises. Turker and Selcuk (2009) conducted a research to investigate the factors affecting entrepreneurial intention and found that structural support is significant.

Almobaireek and Manolova (2012) defined entrepreneurial motivations as "expectations and beliefs about the personal impacts of outcomes of starting a business". They have also conducted a research on the motivational factors that influence an individual to start their own business. These factors include financial gains, higher social position, gaining experience, achievement and reaching a personal vision. This study revealed that the more motivational factors an individual have the greater the likelihood of expressing entrepreneurial intention. Eijdenberg and Masurel (2013) describe the entrepreneurial motivations as "pull" and "push" factors. "Pulled" entrepreneurs are individuals who start their own business due to personal unforced desires. On the other hand, "pushed" entrepreneurs are pushed to start their own business due to dissatisfaction with the current position or any other reason that is unrelated to the individual's entrepreneurship characteristics. Shane et al. (2012) conducted a study on the entrepreneurial motivators which has been referred to in many other researches. The author found that the most significant factors affecting entrepreneurial motivations are the need for achievement, a person's locus of control, desire for independence, vision, passion, drive, a person's goal setting and self-efficacy. Innovativeness is the ability to introduce and apply ideas, processes, products and procedures that are new (Altinay et al., 2012). It is about an individual being open to new ideas, changes and making independent decisions. Innovativeness has been increasing in importance in many studies which shows the importance of it towards entrepreneurship. Many studies reported that entrepreneurs are more innovative than non-entrepreneurs (Gürol and Atsan, 2006).

According to a study done by Gürol and Atsan (2006), there is significant relationship between innovativeness and entrepreneurial intention. Another study done by Gurel et al. (2010) on the innovativeness of British and Turkish students, showed same positive results. In addition, Mueller and Thomas (2001) recognized innovativeness as an important characteristic toward starting own business. In many of the previous entrepreneurship studies, researchers describe entrepreneurs as "innovators".



Therefore, in view of the preceding discussion, the following hypotheses are proposed:

**H1:** There is a relationship between enterprise education and entrepreneurial intention.

**H2:** There is a relationship between perceived social norms and entrepreneurial intention.

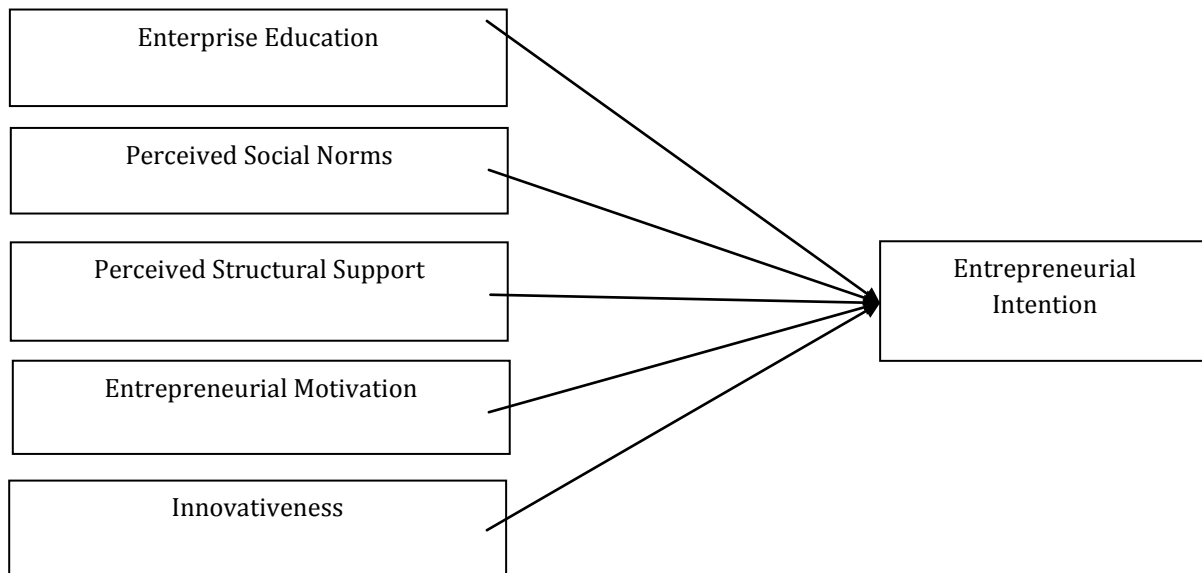
**H3:** There is a relationship between perceived structural support and entrepreneurial intention.

**H4:** There is a relationship between entrepreneurial motivation and entrepreneurial intention.

**H5:** There is a relationship between innovativeness and entrepreneurial intention.

**Conceptual Model:** A comprehensive literature review shows a lack of empirical studies that examine the impact of enterprise educations, perceived social norms, perceived structural support, entrepreneurial motivations, and innovativeness on entrepreneurial intention among youth in Maldives. Hence, a conceptual model was proposed as shown in Figure 1. In this model, all five factors (enterprise educations, perceived social norms, perceived structural support, entrepreneurial motivations, and innovativeness) influence entrepreneurial intention (H1-H5).

**Figure 1: Research Model**



### 3. Methodology

**Data collection and sample:** The target population of this research is young people living in the capital of Maldives, Male'. The capital city is chosen as more than one-third of the population of Maldives lives here which consists of people from various parts of the country (Anees, 2014). Moreover, in Maldives, the number of unemployed youth in 2013 is 26.5% (Quandl, 2015). Thus, the government is taking initiatives to reduce the number of unemployed youth taking the road of crimes. The youth entrepreneurship gained the attention of Maldivians with the launch of "Get Set-Maldives Youth Entrepreneurship Program" during the end of 2014. Under this program, MVR200 million (US\$12.9 million) worth of loans will be provided to youth who wants to start their own business (Naish, 2014). Even though the loans are provided, the success depends on the level of entrepreneurial intention among youth. The respondents of the study are youth whose age is between 18 and 35 years old. Dash and Kaur (2012) defines youth as a person between 18-35 years of age. A questionnaire survey was developed to obtain the responses about their opinions on factors motivating them to be entrepreneurs. All measurement items were adapted from past studies (refer to table 1). Five-point Likert scales anchored by two sides of opinions from "strongly disagree" to "strongly agree" were applied.

A cross-sectional research design was employed because the data was collected at a single point in time (Sekaran and Bougie, 2010). The cross-sectional design was chosen because it saves time and cost effective which meets the study's requirements (Sekaran and Bougie, 2010). This study employed the quantitative research approach where it is widely used in social sciences (Sekaran, Robert and Brian, 2001). To substantiate the appropriateness of the items used in the study context, three experienced practitioners were

invited to assess the content validity of each item with respect to the definition and study context. Slight changes were made following comments and suggestions without substantially altered the questionnaire. This study used convenience sampling and the data were collected by using self-administered questionnaires distributed via the drop and collect technique. The researcher employed convenience sampling method where the respondents were chosen according to their accessibility. According to Sekaran and Bougie (2010) convenience sampling method is very fast, convenient and less costly. Of the 250 distributed questionnaires, 150 respondents completed and returned the questionnaires, representing a response rate of 60 per cent.

**Table 1: Measurements**

<b>Variables</b>	<b>Source of items</b>	<b>Items</b>
Entrepreneurial intention	Dinis et al. (2013)	I am ready to do anything to start my own business My professional goal is to start my own business I will make every effort to start and run my own firm I am determined to create a firm in the future I have the intention to start a firm someday
Enterprise education	Keat, Selvarajah and Meyer (2011)	University/school is an ideal place for me to learn about starting a business More education programs will help me to start my own business Entrepreneurial courses/subjects should be made compulsory in order to stimulate entrepreneurial spirit We are actively encouraged to pursue business ideas in the university/school A creative university/school environment inspires me to develop ideas for new business
Perceived social norms	Heuer and Kolvereid, 2014); Liñán, Urbano and Guerrero (2011)	My family will always give me support if I wanted to start my own business My closest friends will always give me support if I wanted to start my own business Most people in my country consider it acceptable to start own business The culture in my country is highly favorable towards entrepreneurial activity The entrepreneur's role in the economy is generally valued in my country
Perceived structural support	Turker and Selcuk (2009)	Entrepreneurs in Maldives are encouraged by private, public and non-governmental organizations The economy of Maldives provides many opportunities for entrepreneurs Getting loans is quite easy for entrepreneurs in Maldives Rules and regulations in Maldives are favorable to running own business
Entrepreneurial motivations	Eijdenberg and Masurel (2013); Almobaareek and Manolova (2012)	Financial gain makes me want to start my own business Lack of employment opportunities in Maldives encourages me to start my own business I want to start my own business so that I can achieve more in life I want to create my own business so that I can be independent
Innovativeness	Dinis et al. (2013)	I like changing the way things are done While others see nothing unusual in the surroundings, I am able to perceive opportunities for business I am able to get around difficulties through strokes of imagination and resourcefulness I believe there are always new and better ways of doing things I find it easy to come up with new, wild or even crazy ideas

#### 4. Findings

A total of 157 questionnaire respondents were collected within the capital city of Maldives, Male'. Preliminary analyses were conducted to provide information about the characteristics of respondents. There are about 52.87% of male respondents and 47.13% is female. According to the preliminary result of census 2014 in Maldives, 50.75% is male and 49.25% is female (National Bureau of Statistics, 2015). It can be said that the male population in Maldives is slightly higher than female. As a result, the respondents of this questionnaire reflect this difference in distribution as well. Most of the respondents from this survey are of the age group 18-22 years old which is 42.04% of the total respondents. The second largest group is of 23-27 year olds which consist of 35.03% of the respondents. The age group of 28-34 year old shows a much lower percentage of 22.29%. There were no missing values as the measurements were taken during the questionnaire distribution to retain full respondent answers. The normality of distribution was examined with the analysis of skewness and kurtosis of the data. The skewness and kurtosis of the data shows a value close to zero which represents normality distribution (Tabachnik and Fidell, 2001). A reliability test was conducted on the dataset to ensure that all items to be used for the survey are reliable before testing the hypothesis. Results in Table 2 shows the Cronbach's Alpha value for all variables are higher than 0.7. According to Nunnally (1978), if the reliability coefficient has a minimum value of 0.70 then it is regarded as 'adequate' in most research situations.

**Table 2: Reliability Testing**

Constructs	Cronbach's Alpha
Entrepreneurial Intention	0.941
Enterprise Education	0.775
Perceived Social Norms	0.772
Perceived Structural Support	0.890
Entrepreneurial Motivations	0.817
Innovativeness	0.876

Table 3 presents results of a multiple regression analysis used to evaluate the strength of the proposed relationship. Five hypotheses were formulated and all the variables were retained after performing the reliability and validity testing. Multiple regression prediction models follows the guidelines by Hair *et al.* (2009) to test the impact of enterprise education, perceived social norms, perceived structural support, entrepreneurial motivations and innovativeness with entrepreneurial intention as the dependent variable. The multiple regression analysis showed an R square of .461 which means about 46.1% of dependent variable is explained by all the independent variables used in this study.

**Table 3: Regression analysis results-Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.679 <sup>a</sup>	.461	.443	.78218

a. Predictors: (Constant), I, PSS, EE, EM, PSN

#### Anova

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	78.858	5	15.772	25.779	.000 <sup>b</sup>
	Residual	92.382	151	.612		
	Total	171.240	156			

a. Dependent Variable: Entrepreneurial Intention

b. Predictors: (Constant), I, PSS, EE, EM, PSN

**Coefficients**

Factors/determinants	Standardized Beta Coefficients	t	Sig.
(Constant)		2.456	.015
Enterprise Education (EE)	.312	4.254	.000
Perceived Social Norms (PSN)	.157	2.047	.042
Perceived Structural Support (PSS)	-.051	-.726	.469
Entrepreneurial Motivations (EM)	.253	3.557	.001
Innovativeness (I)	.211	2.804	.006

*F*<sub>(5,156)</sub>=25.78, *R*<sup>2</sup> = 0.461, *Adj. R*<sup>2</sup>=0.443  
*Dependent Variable: Entrepreneurial Intention*

The result showed that enterprise education, perceived social norms, entrepreneurial motivations and innovativeness have a positive and significant relationship towards entrepreneurial intention ( $\beta = .312$ ,  $p < 0.01$ ;  $\beta = .157$ ,  $p < 0.05$ ;  $\beta = .253$ ,  $p < 0.01$ ;  $\beta = .211$ ,  $p < 0.01$ ) respectively. However, perceived structural support has negative influence as well as no significant relationship towards Entrepreneurial Intention. ( $\beta = -.051$ ,  $p > 0.05$ ). This concluded that perceived structural support did not influence the entrepreneurial intention among Maldivian Youth. These results provide support for H1 (a significant positive relationship between enterprise education and entrepreneurial intention), H2 (a significant positive relationship between perceived social support and entrepreneurial intention), H4 (a significant positive relationship between entrepreneurial motivation and entrepreneurial intention), and H5 (a significant positive relationship between innovativeness and entrepreneurial intention) but not for H3 (relationship between perceived structural support and entrepreneurial intention). In addition, this study also found that enterprise education becomes the most significant predictor of entrepreneurial intention followed by entrepreneurial motivation, innovativeness and perceived social norms.

**Discussion:** The results from this survey show enterprise education has a significant relationship towards entrepreneurial intention. This indicates that in Maldives, youth who are more exposed to entrepreneurship education have a high intention of starting own business. They believe that their business knowledge can be improved through entrepreneurship targeted curriculums and by providing a study environment that supports creative ideas. Frank (2007) stated that individuals who are exposed to business knowledge are more likely to start their own business. Moreover, educational institutes help in fostering entrepreneurship traits (Ibrahim and Soufani, 2002). The finding is also consistent with prior studies that explored entrepreneurship education can develop a person's level of self-efficacy (Wilson et al., 2007). In addition, students participated in entrepreneurship education have shown more intentions towards starting their own business (Noel, 1998). This is because entrepreneurship education will develop a vision among students to start their own business with innovation (Wilson, 2007). Perceived social norms also showed a significant relationship towards entrepreneurial intention. This denotes that more support from family, friends and the society can motivate Maldivian youth to go into a career as an entrepreneur. This is because the encouragement from people close to an individual affects the motivation to go into certain career path. This result is consistent with previous studies done by Engle *et al.* (2010) who exerted the social norm variable appeared to be significant predictor of entrepreneurial intent. Other researchers stated that social group, family, friends and role models have a positive influence on entrepreneurial intention after conducting a research among 14 different countries (Engle, Schlaegel and Delanoe (2011). In addition, Mitchell (2002) reported that entrepreneurial intention differs across cultures hence it can be concluded that Maldivian culture is favourable towards youth starting their own business.

The third factor that had a significant relationship towards entrepreneurial intention is entrepreneurial motivation. This implies that the youth in Maldives are more willing to start their own business if there are good returns such as financial gain and independence. Previous research conducted by Almobaireek and Manolova (2012) supporting the current results where if an individual has more motivators, that person is more likely to choose entrepreneurship. Baumol (1990) suggested that entrepreneurs are motivated by the reward structure in the economy where a new venture initiation focuses on the usefulness, utility, or desirability of an entrepreneurial career. Other researcher mentioned the economic decision is based on the

expected net present benefits of entrepreneurship relative to the expected gains from wage labour (Campbell, 1992). Praag and Cramer (2001) found that people would become entrepreneurs if the expected rewards surpass the wages of employment. This is because expected rewards depended on assessments of individual ability and attitudes towards risk and perceptions of entrepreneurial feasibility. Moreover, the choice between employment and self-employment changes according to the individual's age (Levesque et al., 2002).

Innovativeness also showed a significant relationship towards entrepreneurial intention among youth in Maldives. This states that the more innovation capability an individual possess the more possibility of going towards self-employment. Youth especially will have more innovation capability hence it has a positive impact on entrepreneurship. This result is in line with Gürol and Atsan (2006) who states that entrepreneurs are more innovative than non-entrepreneurs and that there is in fact a positive relationship between innovativeness and entrepreneurial intention. Stewart et al. (2003) argue that innovation is inherent in the role of entrepreneurship and it can separate "entrepreneurs" from "managers". Other researcher found a close relationship between innovativeness and venture performance (Utsch and Rauch, 2000). Perceived structural support was not rejected and showed no significant relationship between this factor and entrepreneurial intention among youth in Maldives. Even though some previous research found that there is a significant relationship between these two factors, it should be noted that this relationship does not exist in Maldives. Moreover, most of the previous researches were conducted in developed nations while Maldives is a developing nation (Eijdenberg and Masurel, 2013). Hence, these differences could have contributed to this factor into not having an impact on entrepreneurial intention. In addition, as youth entrepreneurship is a new concept in Maldives, youth may not be aware about the government or organizational support available to them (Villarino, 2015).

## 5. Implications and Conclusion

This research has achieved its objectives in analyzing the factors that influence the youth of Maldives to start their own business. Youth entrepreneurship is new in Maldives; hence this research helps to investigate the entrepreneurship studies based on a new culture and environment. The result from this study showed that enterprise education has the highest impact on the youth of Maldives. Although the Getset program designed by the Maldivian government includes business training program for future entrepreneurs, if the youth are not encouraged to take initiative in such activities, it will not provide any benefit (Getset.mv, 2015). Instead of only creating a program, the government should provide more support. As youth entrepreneurship is comparatively new in Maldives, it is essential that the training and creativity building starts from a very young age. The teaching curriculum needs to be revised so that the students are given the chance to build their creativity. More extra-curricular activities could be introduced for students who are interested in actively participating in the economy rather than pushing them to towards a certain white collar profession. For example, a club within the school that gives the chance for students get to create their own company and plan investments would actually increase the practical knowledge of the future youth on what they can expect when they initially start a business. Events and activities in colleges and schools should be frequently held that give opportunities for youngsters to present their business ideas to the public which could actually help them to get investors.

Although structural support did not show a significant relationship towards entrepreneurial intention in this study, it still can be considered as an important influence. The result could have been due to the youth being unaware of the structural support provided by the government and society in Maldives. Therefore, more exhibitions, promotions and entrepreneurship programs need to be conducted within the country and not just in the capital city. Youth need to be able to understand that government loans and agencies are there to help the future young entrepreneurs. In addition, as the women have less encouragement from the culture, more social awareness is needed. The male respondents do not have a high influence from social values such as family, friends and society as it had on female respondents. More social awareness and programs need to be conducted by the government agencies so that no gender discrimination exists that might discourage women to be entrepreneurs. Women entrepreneurs should be given the chances and opportunities from the government as what have been provided to men. Social encouragement from the society towards youth entrepreneurship, especially women, needs to be improved. Although women are given the chance for self-employment in Maldives, the results show that there is some hesitant from this gender due to the society

values. In addition, it was also found that enterprise education has a high impact on women as well. Therefore, the government should establish more activities to provide structural support as well as creativity building programs designed especially for women.

Other factors such as innovativeness and motivators also showed a significant relationship in entrepreneurial intention among youth in Maldives. More programs and activities should be conducted within the education curriculum at school as well as outside school compound so that it helps students to develop their innovation capability. Some youth only know about the risks and failures about starting own business and less aware about the benefits and how to overcome the risks. Innovation building is very essential to encourage youngsters to create innovative business ideas that can succeed in the Maldivian culture. There are some limitations that suggest caution in assessing the findings. First, limitations related to the sample size. The sample size used for this study is 150 respondents. In addition, the sample was limited to the capital city of Maldives, Male'. According to Sekaran and Bougie (2010), cost and time constraints determines the sample size and as this was a cross-cultural research, a small sample size was selected. Therefore, this study represents a small part of the total population which may not accurately represent the whole youth in Maldives.

Moreover, a research by GEM (2013) states that perception of entrepreneurship as a career choice differs between regions. Although the respondents were selected from the capital city to represent the population of the Maldives, the difference in culture and other environmental factors can influence the entrepreneurial intention in other countries. Hence, the result of this research cannot be generalized as a whole to represent the intention in other regions. The variables used in this study do not cover all the factors that can contribute to the entrepreneurial intention. The results show that the R-square is 0.461 which means 46% variables contribute to the entrepreneurial intention. Hence, the variables that are not examined in this study might contribute to the finding (influencing the entrepreneurial intention), depending on the culture where the sample is based. Lastly, the method used for this research can be a limitation as well. To collect the data a convenience sampling method was used. Convenience sampling method was used as it is quick, convenient and less expensive and with the time constraints this was the best fit method for this research. However, the data from convenience sampling method cannot be generalized to represent the entrepreneurial intention of youth across different countries.

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## Factorial Validation of a Corporate Social Responsibility Perception Scale for Micro, Small, and Medium Enterprises

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**Abstract:** The aim of this study is obtaining a valid and reliable scale to evaluate the Corporate Social Responsibility perception level (pCSR) of micro, small, and medium-sized Mexican enterprises. A literature review revealed 58 items among 11 dimensions: Ethics, performance, business model changes, quality of working life, the environment, community outreach, marketing, philanthropy, competitiveness, and the interests of stakeholders. A total of 296 companies located in Mexico were considered for the study. Principal axis factoring with varimax rotation was performed with the Exploratory Factorial Analysis Technique (EFA) to give an interpretation to the pCSR in the Mexican context. The factors found are the environment and social commitment, performance, ethics, change in business model, restrictions, and competitiveness. The outcomes show that the scale is valid and reliable for use in evaluating pCSR in micro, small, and medium-sized enterprises. This scale is a tool that allows us to evaluate the social responsibility of micro, small, and medium-sized enterprises, we conclude that considering the characteristics of Latin America, we have provided an original scale to measure pCSR.

**Keywords:** *Corporate Social Responsibility, Performance Metrics, Exploratory Factor Analysis, MSMEs*

### 1. Introduction

Corporate Social Responsibility (CSR) is a methodology that organizations are incorporating into their businesses for philanthropic reasons due to pressure from stakeholders or for convenience. They adopt CSR as a strategy to improve competitiveness, to become more sustainable, and to improve their quality of life (FUNDES, 2005:26). Both at national and international levels, the ethical behavior of companies, their commitment to the community, the preservation of the environment, and the quality of life of their human capital, are aspects observed by governments, organizations, associations, and researchers. Companies making a product, retailing, or offering a quality service must also commit to aspects such as social marketing, economic retribution to their human capital, community outreach, paying taxes, revenue generation, job creation, environmental training, health, and job security. Among companies' CSR actions are their commitment to develop programs that have a sustainable impact, as much within their internal administration as on the communities in which they operate (CEMEFI, 2008), considering the demands of their different stakeholders (customers, suppliers, workers, community, among others). MSMEs boost innovation, entrepreneurial initiatives, and competitiveness (Spence et al., 2000; Enderle, 2004; Sweeney, 2007; Fisher et al., 2009). However, many believe that small and medium-sized businesses are not interested in being socially responsible, or they do not have the capacity to do so (Castka et al., 2004; Shoenberger-Orgard, 2005; Jenkins, 2004). This could not be further from the truth, as these kinds of companies have flexible operations, rapid communications channels (Margolis, 2001), their business value chain (Argandoña, 2008), and their local involvement. All of this makes these types of companies aware of all their overriding problems.

Enterprises, organizations, and researchers around the world are concerned about the RSC study; it is also true that most Mexican research is based mainly on: ISO26000 (2007), Social Accountability Standard 8000 (Accountability, 2004), the Global Reporting Initiative (GRI, 2009), and the Mexican Norm on Responsibility (IMNC, 2004). However, most of them also take into account certain dimensions from other models. García de la Torre, Portales, and Camacho & Arandia (2010:98) comment that with the GRI, which includes three elements from TBL, all the others are focused on one or two elements from the Elkington Model. This model called the Triple Bottom Line (TBL) includes economic, social, and environmental dimensions. There are few works about developing constructs about local business in the national and cultural environment, especially in SMEs (Pérez y Veloz, 2007; IMNC, 2004). It is important to know the CSR perception level of the MSMEs. Therefore, this work presents the validation of a scale for Mexican enterprises, using Exploratory Factor

Analysis (EFA) with extraction factors of the principal components using the Varimax method of orthogonal rotation. This research is considered relevant due to the lack of similar studies on this subject in Mexico, and the need to design specific tools following the ideologies of developing countries.

This paper offers two contributions. The first one is to provide a customized scale to evaluate the level of social responsibility on Mexican SMEs. The second one provides SMEs with feedback on their own business as a guide on how to become a socially responsible enterprise. This research has been structured into five sections. The first one, the introduction, mentions the importance of CSR in SMEs and the research objectives. The following section is a review of the literature, substantiating the importance of the study of CSR and validation through Exploratory Factor Analysis. The third section is concerned with the methodology, describing the original scale. In the fourth section the analysis and results obtained are shown, using the Exploratory Factor Analysis (EFA), with the extraction factors of the principal components, and using the Varimax method of orthogonal rotation.

## 2. Literature Review

The social, economic, and environmental actions of a company from any country “may affect or be affected as a consequence of the organizational’s objectives” (Freeman, 1984:46). The spread of CSR in companies is observed by governments, researchers, as well as international and national organizations. Many researchers have developed studies to measure CSR from different perspectives: Organizational results (Zahra & LaTour, 1987); ethics (Singhapakdi et al., 1995; Singhapakdi et al., 1996); social performance (Kraft & Hage, 1990; Kraft & Jauch, 1992; Waddock & Graves, 1997); financial performance (Aupperle et al., 1985; McWilliams & Siegel, 2000); labor issues and workers rights; environmental responsibility (Vives, 2005); dimensions of CSR in MSMEs (Nuñez, 2008); tridimensional surveys; knowledge of the company and its products; consumer opinion of CSR; purchase behavior (Vila & Gimeno-Martínez, 2010); focus on stakeholders (Dopico et al., 2012); strategic variables (Gallardo-Vázquez et al., 2013); the perspective of small business owners (FSB, 2008); the environment, the social aspect, and the performance of the corporate government (KPMG, 2013), among others.

Tools have been developed in Mexico to diagnose CSR in organizations such as the Centro Mexicano para la Filantropía A.C. [Mexican Center for Philanthropy, registered charity in Mexico] (CEMEFI, 2014), which produced a survey that is applied to companies that seek to obtain the ESR® certification. The fundamental areas of this survey are: Quality of life in the company, corporate ethics, community outreach, and care and preservation of the environment. Another organization is the Fundación del Empresario Chihuahuense, A.C. [The Entrepreneur’s Association of Chihuahua, registered charity in Mexico] (FECHAC, 2014), which evaluates four indicators: Quality of life in the company, community outreach, care and preservation of the environment, competitiveness of the company, and the relationship with its stakeholders; this instrument is entirely web based. The agency responsible (Aguilar, 2013), provides statistical data on the CSR of large and MSMEs, which is centered on five axes: Reach and structure; implementation; communication; benefits and profitability; and consumer perception. Also, the Mexican Norm in Social Responsibility (IMNC, 2004), which is based on seven dimensions: 1) Ethical values, 2) mutual benefit between the interested parties, 3) leadership, 4) personal involvement, 5) process approach, 6) system approach to management, and 7) continuous improvement. Several researchers, such as Husted & Salazar (2005), contributed an instrument to analyze factors that contribute to companies’ motivation to participate in social projects: Profitability and relationships; human capital; social responsibility; competition; and social inclusion. Mercado & García (2007) evaluated the following variables: Business ethics, environmental preservation, quality of working life, and community outreach.

**Initial pCSR Scale:** The majority of the aforementioned tools evaluate the environment, quality of life, ethics, competitiveness, profitability, and community. However, despite the range of dimensions that each survey involves, we consider it necessary to look into the indicators in order to determine the companies’ CSR perception levels. Therefore, the objectives of this research are: 1) To develop a scale to measure pCSR, 2) to determine the dimensions of the scale, 3) to evaluate the reliability and validity of the scale. Taking into consideration aspects such as ethics, philanthropy, labor conditions, the environment, commitment to the community, social marketing, restrictions, performance, changes in the management model, obtaining

benefits, and the interests of stakeholders, we have the goal of obtaining a tool that measures the companies' socially responsible behavior. In order to determine the dimensions of the new scale proposed in this study, a literature study was first carried out. Eleven dimensions were found: Ethics, performance, changes in the business model, restrictions, quality of working life, the environment, community outreach, marketing, philanthropy, competitiveness, and the interests of the stakeholders (see table 1).

**Table 1: Dimensions of the pCSR scale based on the literature review**

<b>Code</b>	<b>Initial scale dimension</b>	<b>Dimension found in the literature</b>	<b>References</b>
ETIC	Ethics	Ethics	CEMEFI (2014); Vitell & Ramos (2006); Graafland (2004); Staples (2004); Zinkin (2004); Dawkins (2004); Uusitalo & Oksanen (2004); Foka (2003); Mori (2001); Donaldson (1996); Pratley (1995); Danley (1999); Vogel (1986); Zenisek (1979).
FIL	Philanthropy	Philanthropy	Saha & Darnton (2005); Lichtenstein et al. (2004); Rashid & Ibrahim (2002); Mori (2001); Smith & Alcorn (1991).
DES	Performance	Benefits and Business Sense	Aguilar (2013); Husted & Salazar(2005); Núñez (2003).
MODEG	Changes to the business model	Business model	Gallo (2008); Chesbrough & Rosenbloom (2002).
REST	Restrictions	Barriers	Ferrer-Balas et al. (2008); Velásquez et al. (2005); Dahle & Neumayer (2001); Creighton (1999); Riera (1996); Van Ginkel (1996); Meyerson & Massy (1995).
LAB	Labor conditions	Employees, quality of life in the company or workplace	CEMEFI (2014); FECHAC (2014); Dopico et al. (2014); Parsons Corporate Social Responsibility Report (2013); Longo et al. (2005); Saha & Darnton (2005); Ramasamy & Ting (2004); Staples (2004); Lichtenstein et al. (2004); Mori (2001); Sison (2000); Foss (1973).
MEDAM	The Environment	The Environment	CEMEFI (2014); FECHAC (2014); Parsons Corporate Social Responsibility Report (2013); Saha & Darnton (2005); Bigné & Currás (2008); David et al.(2005); Longo et al. (2005); Sasia (2004); Staples (2004); Dawkins (2004); Uusitalo & Oksanen (2004); Mori (2001); Maignan & Ferrell (2000); Brown & Dacin (1997); Zenisek (1979).
COMUN	Commitment to the Community	Society	CEMEFI (2014); FECHAC (2014); Dopico et al. (2014), Parsons Corporate Social Responsibility Report (2013), Longo et al. (2005); Sasia (2004); Ramasamy & Ting (2004); Lichtenstein et al. (2004); Carroll (2004); Dawkins (2004); Mori (2001); Mohr et al. (2001); Richardson et al. (1999); Baram (1984); Zenisek (1979).
MKT	Marketing	Marketing	García de los Salmones et al. (2007); Klement & Urša (2007); Maignan & Ferrell (2004); Singhapakdi et al. (1996); Bagozzi & Baumgartner (1994).
COMP	Competitiveness	Competitiveness	FECHAC (2014); Dopico et al. (2014); Porter & Kramer (2006); Husted & Salazar (2005); Núñez (2003).

PRESGI	Interests of Stakeholders	Pressure from interest groups/ Stakeholders	FECHAC (2014); Klement & Urša (2007); Sasia (2004); Dawkins & Lewis (2003); Garvare& Isakson (2001).
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Source: Own compilation based on the literature review.

### 3. Methodology

With the aim of obtaining a valid and reliable scale to evaluate the pCSR of micro, small, and medium-sized Mexican enterprises, the Exploratory Factorial Analysis Technique (EFA) was applied, with principal components factor extraction, using the Varimax method of orthogonal rotation. Before this analysis we made a content validation by an expert’s panel to ensure the content of each item in the scale. After the EFA, we also run a Reliability analysis: Cronbach’s Alpha, Compound Reliability, and Analysis of Variance by Extraction, for the extraction scales were the measures used. Results from these measures are presented later. The quantitative tool was developed based on the Likert five points scale, with answers ranging from completely disagree(1), to completely agree (5). The survey asked 58 items based on the 11 dimensions (see appendix 1).

**Technical information about the research:** The sample comprised 296 micro, small, and medium-sized enterprises (MSMEs) located in Celaya, Guanajuato, Mexico. There were considered to be companies with at least five employees and an sufficient number of them to determine its social commitment (see table 2).In order to classify the MSMEs, we used Mexican criteria for this (DOF 2009).Regarding the number of employees (micro from 0 – 10, in the commercial, industrial, and service sectors; small from 11 to 50 in the industrial and service sectors, and from 11 to 30 in the commercial sector; medium from 51 to 250 employees in the industrial sector, 51-100 in the service sector, and 31 to 100 in the commercial sector).

**Table 2: Technical research data**

Scope	935 MSMEs with at least 4 employees and up to 250. (Source: SIEM, 2011)
Country of origin	Mexico
Sample	296
Participation index	32%
Sample error	5%
Reliability	95%
Sampling method	Simple randomized selection from each stratum.
Data collection	Survey applied in person to executives or owners.
Statistical analysis	Factor analysis, with principal component factors extraction using the Varimax method of orthogonal rotation.
Statistics software	SPSS version 20.0.

**Hypothesis:** Once the new scale has been determined, the first hypothesis is as follows:

H<sub>1</sub>. The perception level of corporate social responsibility (pCSR) in Mexican micro, small and medium-sized enterprises (MSMEs) is determined by ethics, performance, changes in the business model, restrictions, quality of working life, the environment, community outreach, marketing, philanthropy, competitiveness, and pressure from stakeholders.

Having determined the pCSR scale, based on Exploratory Factorial Analysis (EFA), the following hypotheses are proposed:

H<sub>0</sub>. The perception levels of corporate social responsibility (pCSR) in Mexican micro, small and medium-sized enterprises (MSMEs) are not determined by the environment or social commitment, performance, ethics, changes in the business model, restrictions, or competitiveness.

H<sub>a</sub>. The perception levels of corporate social responsibility (pCSR) in Mexican micro, small, and medium-sized businesses (MSMEs) are determined by the environment, social commitment, performance, ethics, changes in the business model, restrictions, and competitiveness.

#### 4. Analysis of the pCSR scale and Results

**Content Validity:** Once the 58 items of the initial pCSR tool had been determined, it was reviewed by a panel of experts (businessmen and researchers) with the aim of validating its content. Once corrections had been made to the pCSR, we proceeded to apply it in person to the executives and owners of MSMEs. A global Cronbach's Alfa of  $\alpha = 0.895$  was obtained, which is adequate according to Werts et al. (1974) and Nunally (1978) (considering an acceptable level equivalent to 0.700). However, on analyzing the results by dimension, we observe (see table 3) that 5 of the 11 factors are below  $\alpha = 0.700$ , in particular the dimension of pressure from stakeholders where  $\alpha = 0.452$ .

**Table 3: Internal components of the initial pCSR**

Factors	DES	REST	ETIC	LAB	MEDAM	COMUN	MKT	FIL	COMP	PRESGI	MODEG	Global
Items	8	6	6	5	5	5	8	3	4	3	5	58
Cronbach's Alfa	0.839	0.704	0.775	0.677	0.826	0.668	0.641	0.614	0.768	0.452	0.804	0.895

**Exploratory Factor Analysis:** With the purpose of obtaining a robust tool, we proceeded to analyze the data using Exploratory Factorial Analysis (EFA; Reise et al., 2000). In order to ensure the practical meaning, an absolute value of factorial load was considered to be at least 0.600, considering that this explains an adequate proportion of the variance, and is not elevated (0.800) or abnormal (Hair et al., 2007). At the first attempt, 11 dimensions were considered in the initial tool, finding that the rotation coincides with 12 interactions of 11 extracted components. Of all the variables suggested, 26 were ruled out (see table 4) including 4 that were deleted due to the fact that the values oscillated between 0.618 and 0.681, but only in their interactions (DES7, REST1, REST6, COMUN2, PRESGI1).

**Table 4: Items deleted from the initial tool (pCSR)**

Code	Item	Communalities Extracted	
1	DES4	Attracting investors	0.586
2	DES7	Reducing fiscal responsibilities	0.670
3	REST1	Increasing costs	0.531
4	REST6	Resisting change	0.492
5	COMUN2	Having received complaints from the community	0.580
6	PRESGI1	Demands from society for social commitment	0.508
7	ETIC6	Partners having denounced acts of corruption	0.419
8	LAB1	Equal hiring practices	0.399
9	LAB2	Development and continuous education	0.488
10	LAB3	Partner participation in CSR projects	0.467
11	MEDAM1	Controlling the environmental impact	0.459
12	COMUN1	Understanding the impact of their activities on the community	0.508
13	COMUN3	Corrective measures for complaints from the community	0.529
14	MKT2	Communication of harm/potential harm of their products	0.500
15	MKT3	Use of technology to reduce risk to the consumer	0.455
16	MKT4	Recalling of products due to pressure from consumers and society	0.610
17	MKT5	Marketing strategy focused on benefitting the company	0.477
18	MKT6	Promoting values through marketing strategy	0.642
19	MKT7	Attending to the demands of their clients	0.526
20	FIL1	Self-motivation in CSR behavior	0.646
21	FIL3	Supporting social aspects that the government cannot resolve	0.544
22	COMP3	Improving job satisfaction	0.647
23	COMP 4	CSR bringing more benefits than costs	0.551
24	PRESGI2	Regulation of CSR behavior	0.585

25	PRESGI3	CSR behavior having reduced fiscal responsibilities	0.563
26	MODEG1	Impact on production processes	0.534

Source: Own elaboration based on an extraction method: Principal Component Analysis.

Regarding the explained variance, the process extracts 22 factors in 11 components, explaining 58.427% of the original variation (100%). With the PEARSON correlation matrix, the items were contrasted and confirmed with the Kaiser-Meyer-Olkin coefficient (Kaiser 1970; Cerny and Kiser, 1977), considered a high value (Kaiser 1970, 1974). Bartlett's sphericity test (1950) contrasted the existence of a significant correlation between variables  $c^2 = 7056.929, \rho < 0.01$  at a critical level (significance) of 0.000. However, the data obtained indicate that 4 of the proposed factors to determine pCSR are removed by EFA: Marketing, philanthropy, pressure from stakeholders and community outreach; this last one had 3 items (of which 5 comprised this dimension) with values below 0.580. The reliability analysis of the tool, observed in table 5, is  $\alpha = 0.833$ , and although it is above 0.700 (recommended by Nunnally, 1978; Churchill, 1979), the dimension of quality of work life obtains  $\alpha = 0.665$  representing a weak reliability according to George & Mallery (1995).

**Table 5: Internal scale consistency, removing 4 factors**

Dimensions	DES	REST	ETIC	LAB	MEDAM	COMP	MODEG	Global
Items	6	4	6	2	7	3	4	32
Cronbach's Alfa	0.859	0.735	0.822	0.665	0.861	0.739	0.801	0.833

Therefore, we proceeded to carry out a second try based on 6 dimensions, with an absolute value of 0.600, obtaining the following results: The rotation converged to 7 interactions in 6 extracted components. The results indicate that 6 components are capable of reproducing 58.466% of the original variability (100% of the variance). In relation to communalities, 6 variables were deleted (DES8, REST5, ETIC4, LAB4, LAB5 and FIL2), as shown in table 6.

**Table 6: Deleted items**

Code	Item	Communalities Extracted	
1	DES8	Improving image	0.577
2	REST5	Not knowing stakeholders	0.525
3	ETIC4	Negotiation that allows providers to grow	0.417
4	LAB4	Incentives and recognition	0.387
5	LAB5	Job satisfaction and corrective action	0.449
6	FIL2	CSR forming part of corporate culture	0.476

Source: Own elaboration based on an extraction method: Principal Component Analysis.

Having deleted the items with values less than 0.600, we applied exploratory factorial analysis to the remaining 26 items, with the same data, obtaining a rotation convergence in 6 interactions and 6 extracted components. The results indicate that 6 components are capable of explaining 63.258% of the original variance (100%). Contrasting the factors, the Kaiser-Meyer-Olkin (KMO, Kaiser 1970, Cerny & Kiser, 1977), determined the sample adequacy measurement,  $KMO = 0.841 > 0.600$  which is considered to be a high value (Kaiser 1970, 1974). Regarding the null hypothesis (Bartlett, 1950), a significant correlation was found between variables  $c^2 = 3049.930, \rho < 0.01$  at a critical (significant) level of 0.000. Therefore, the factorial model is adequate to explain the data.

**Table 7: Variance via Extraction (AVE), compound reliability and Cronbach's Alpha**

Dimensions	N	Variance Via Extraction (AVE)	Compound Reliability	Cronbach's Alpha
Environment and social commitment	7	0.604	0.914	0.861
Performance	5	0.652	0.903	0.847
Ethics	5	0.595	0.880	0.819
Changes to the business model	4	0.643	0.878	0.801
Restrictions	3	0.653	0.849	0.719
Competitiveness	2	0.727	0.842	0.719

**Reliability Analysis: Cronbach's Alpha, Compound Reliability, and Analysis of Variance by Extraction-**

In order to determine the internal composition of the tool, a Cronbach's Alpha test was applied to determine the compound reliability and analysis of variance via extraction (AVE). As can be seen in table 7, the internal composition of all dimensions above  $\alpha > 0.700$  are considered an adequate alpha value, followed by compound reliability above  $\rho_c > 0.841$ , an acceptable value considered to be 0.700 (Werts et al., 1974; Nunally, 1978). Finally, the convergent validity was tested using variance via extraction. All dimensions obtained values above 0.594 (Fornell & Larcker, 1981) recommend an  $AVE > 0.594$ . Therefore, the factorial model is adequate for explaining the data.

**5. Conclusion and Recommendations**

It is evident that CSR is an important topic worldwide for individuals, businesses, and countries, all concerned about the repercussions of their actions. This research validates a scale that measures the social responsibility perception of MSMEs in a Latin American country, such as Mexico. A robust scale using 26 indicators was developed to measure the pCSR. According to the hypotheses stated in this work, the first hypothesis "H<sub>1</sub> was rejected. The level of the perception of corporate social responsibility (pCSR) in micro, small and medium-sized Mexican businesses (MSMEs) is determined by ethics, performance, changes in the business model, restrictions, quality of work life, the environment, community outreach, marketing, philanthropy, competitiveness, and pressure from stakeholders", as the pCSR obtained shows only six dimensions: The environment and social commitment, performance, ethics, changes in the business model, restrictions, and competitiveness, accepting the H<sub>a</sub> hypothesis and rejecting H<sub>0</sub>. A significant aspect is that the first scale we proposed included the environment as a separate factor from social commitment, and on the new scale these two factors are merged. Therefore, the AFE allowed a pCSR scale to be established that is adequate to explain the data.

Most of the scales are translated to another country in a simple base and they are applied as if they were equal in both countries contexts. In this case we search items according to the literature and integrated them on a scale that was tested in a local context. One limitation of the study was the sample size, which although statistically adequate, the results may have been different if the study were conducted in other states or at a national level, for which one suggested future line of research is to apply the tool to a sample of the entire country. We also suggest that in addition confirmation analysis be performed in order to obtain a structural model of CSR. It is recommended that in the second part of this study a multiple regression analysis be carried out in order to analyze the influence of the factors obtained in the AFE on the level of CSR perception, which may allow the validation from the econometric point of view as a model of the determinants of the level of perception of CSR in a sample of MSMEs for an emerging economy, such as Mexico. Considering that the proposed scale is a tool that allows us to evaluate the social responsibility of micro, small, and medium-sized enterprises, we conclude that considering the idiosyncrasies of Latin America, we have provided an original scale to measure pCSR.

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**Appendix 1: Items on the initial scale**

<b>Code</b>		<b>Items proposed on the initial scale</b>	<b>Code</b>		<b>Items proposed on the initial scale</b>
1	DES1	Attracting new clients and loyalty of existing clients	30	MEDAM5	The activities are linked to the company's strategy
2	DES2	Increase in profits	31	COMUN1	Understanding the impact of their activities on the life of the community
3	DES3	Improving the quality of the processes	32	COMUN2	Having received complaints from the community
4	DES4	Attracting investors	33	COMUN3	Corrective measures for community complaints
5	DES5	Competitive advantage	34	COMUN4	Taking preventative measures
6	DES6	Employees with high performance	35	COMUN5	Evaluating the social impacts of investments and social projects
7	DES7	Reducing fiscal responsibilities	36	MKT1	Sponsoring or carrying out public interest campaigns
8	DES8	Improving image	37	MKT2	Communicating potential harm of products/services
9	REST1	Increasing costs	38	MKT3	Use of technology to reduce risk to the consumer
10	REST2	Doubts surrounding social responsibility	39	MKT4	Recalling of products due to pressure from consumers and society
11	REST3	Financial difficulties	40	MKT5	Marketing strategies focused on obtaining benefits for the company
12	REST4	Problems incorporating CSR	41	MKT6	Promoting values through marketing policy
13	REST5	Not knowing stakeholders	42	MKT7	Attending to the clients' demands
14	REST6	Resistance to change	43	MKT8	Considering the clients' needs
15	ETIC1	Ethical principles that guide the behavior of the partners	44	FIL1	Self-motivated CSR behavior
16	ETIC2	Legal compliance	45	FIL2	CSR forms part of the corporate culture
17	ETIC3	Positioning against competitors	46	FIL3	Supporting social projects that the government cannot resolve
18	ETIC4	Negotiation that allows for growth of suppliers	47	COMP1	Tool for competitive advantage and financial performance
19	ETIC5	Balanced relationship: Price-product/service	48	COMP2	Tool for improving customer and supplier loyalty
20	ETIC6	Partners speaking out against corruption	49	COMP3	Improving job satisfaction
21	LAB1	Equal hiring practices	50	COMP4	CSR having more benefits than costs
22	LAB2	Continuous development and training	51	PRESG11	Demands by society for social commitment
23	LAB3	Partner participation in CSR projects	52	PRESG12	Regulation of CSR behavior
24	LAB4	Incentives and recognition	53	PRESG13	CSR behavior having reduced fiscal responsibilities
25	LAB5	Job satisfaction and performing corrective actions	54	MODEG1	Impacts on production processes

26	MEDAM1	Controlling the environmental impact	55	MODEG2	Impact on the budget
27	MEDAM2	Programs to collect waste and recycling	56	MODEG3	Changes in the organizational structure
28	MEDAM3	Introduction of technologies to reduce the environmental impact	57	MODEG4	Impact on company costs
29	MEDAM4	Development of activities to care for the environment, linked to company strategy	58	MODEG5	Impact on corporate culture

Source: Own elaboration based on the literature.

## Organizational Intelligence and Employee Performance: The Mediating Role of Distributive Justice

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**Abstract:** A well thriving education system, initiate and promotes innovation along research, is a key to the performance, productivity and sustainability in the august world class universities, colleges and schools. Globalization and digital revolution are creating new strategic competition and advancement as, a result innovative knowledge and learning's are driving our economic system. Both public and private organizations are forced to adopt these innovative and technical reforms in order to survive in a competitive environment, which can be possible through spiraling education system by research and innovative techniques. This study intends to investigate the mediating effects of distributive justice on relationship between organizational intelligence and employee performance in education sector. Based on a sample of 113 employees and using structural equation modeling approach, the organizational intelligence is found to have positive effects on distributive justice. The findings of the study suggest that the effects of organizational intelligence on employee performance are fully mediated by distributive justice. This study provides a strapping foundation for all educational institutes to analyze whether they are implementing strategic management practices or not. Systematic and assertive implementation of these practices will not only uplift the quality and standards of educational institutions but also essential for better performance of every industry.

**Keywords:** *Organizational Intelligence, Distributive Justice, Employee Performance, Educational Institutions*

### 1. Introduction

Globalization and digital revolution has created a demand for use of innovative techniques and new practices in education sector. Educational institutions are now heavily dependent on mental resources and human capitals for knowledge dispersion (Gill, 2009) The cost of providing the quality of services and education has gone up due to the advancement in technologies, use of high resources, learning and adoption of new techniques with better teaching methodologies. The vigorous increase in the number of institutions equipped with these competitive advantages in education sector has led to an intense competition. In modern times one of the greatest management challenges is how to create a new generation of intelligent Organizations. Organizational intelligence is gained by specific vision, knowledge learning, morale of employees and pressure of performance(Kesti, Syvajarvi, Stenvall, & Rivera, 2011).In education sector, being knowledge-based organizations, universities, colleges and other such organizations must be a pioneer for achieving, producing and sharing organizational intelligence. Now a day's knowledge is consider as the back bone of global economy and knowledge management plays very significant role in achievement of organizational success at every level, therefore knowledge management is considered as foremost constituent of structure and process of any training organization (Raj Adhikari, 2010).Our capability to give challenge or stay alive in the global economic system is strictly based on our dedication and attitude to develop our knowledgeable human capital . This can be only possible by constructing of constant learning process and knowledge management in term of organizational intelligence within the government institutions and all other organizations in order to construct innovative culture. This Innovation is related with enhancement in our productivity and competitive performance at national level and the dynamic innovation systems engage interaction among a number of different components in our civilization which is based on the public and private sector educational and research institutions (Mikulecký, Lodhi, & Mastorakis, 2009).The literature on employees performance in educational sector of Azad Kashmir &Pakistan remains scarce .So, this study is designed to investigate the organizational intelligence practices which are imperative to boost the employee's performance in educational sector of Azad Kashmir and Pakistan. Moreover, this study underwrites to the prevailing body of knowledge by investigating the mediating role of distributive justice on the relationship between organizational intelligence and employee performance.

## 2. Theoretical Framework

This section presents the theoretical foundations for the three constructs of the study, namely, Organizational intelligence, distributive justice and employee productivity.

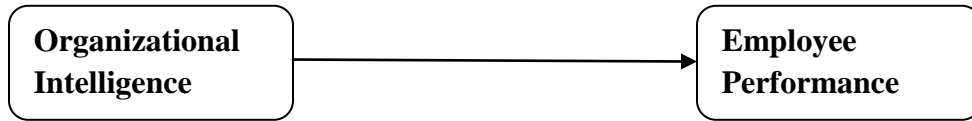
**Employee Performance:** Employees' performance is precise definition towards accomplishment of organizational goals, So in order to satisfy the needs of the employees, the enterprise undertake the duties and responsibilities of such workforce who effort more and get what they want by giving more importance to their working (Yilmaz & Ergun, 2008). Therefore, enterprise develops their careers and working life by introducing training programs, promote their ranks and rendered more compensations and extra bonus salaries for their best goals oriented work, It is because enterprise with these skilled human resource will achieve their business goals more effectively and efficiently (Bourlakis, Maglaras, Aktas, Gallear, & Fotopoulos, 2014). The three main factors that effects performance of employee are categories as, organizational, personal and environmental factors (Gümüştekin & Öztemiz, 2005). Employee Performance is based on the result of the output at the end of a certain time; this result is the degree of accomplishment of business objectives or goals. So, therefore performance is the result of all efforts use to attain business objectives (Gümüştekin & Öztemiz, 2005)

**Organizational Intelligence:** Organizational intelligence is new concept in the course of texts and management, its background dated in 1990s and its roots can be searched in theories of organizational learning and knowledge management. Initially, Matsuda coined organizational intelligence and observed organizational intelligence as combination of human and machine intelligence. The model was defined by him explains the process of human knowledge and science based on machine for sorting out organizational problem (Kim, Suh, & Hwang, 2003). The ability to learn, reason, and understand is known as intelligence (Kesti et al., 2011). Whereas Organizational intelligence is defined as the quantitative evaluation of usefulness in distribution of information, decision making process and implementation by an organization (Yaghoubi, Gholami, & Armesh, 2012). The ability of an organization to generate knowledge and utilize it by strategically adapting it on situation or marketplace is organization intelligence. The study of organizational intelligence determine the intellectual competence of whole organizations, as like we use to calculate the intelligence of people by using I.Q. Simply, It is just similar to I.Q but applied at an organizational level abbreviated as O.I.Q. General Motors has an O.I.Q. of 85, I.B.M. is rated at 105 and Microsoft is having 120 (Halal, 1997). The evaluation of organizational intelligence went ahead of the cognitive point of views as organizational intelligence extends due to the day-to-day actions of the organization. So its evaluation based on social, behavioral, emotional and cognitive dimension and in this way, organizational intelligence is a multifaceted and multidimensional concept comprised of the recursive interaction of cognitive, emotional and behavioral potential of organization (Ali & Ahmad, 2006)

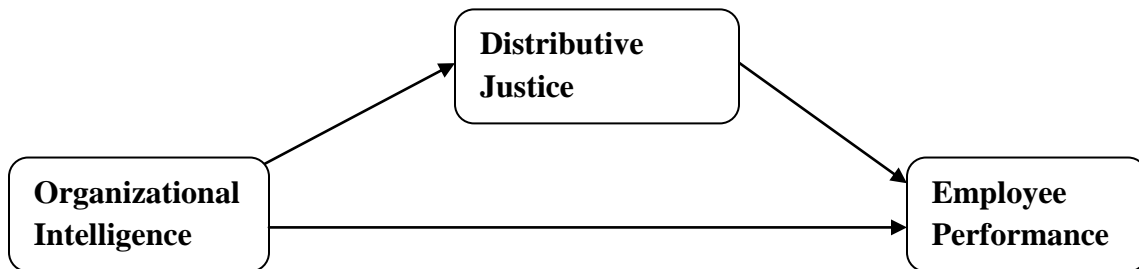
**Distributive Justice:** Immoral decision making by employee in organization will lead to a lofty cost for person and organization collectively. So managers and accountable people should expand additional effort to devise an appraisal system for performance which allows employee to participation at some stage in the planning. The basic and vital cause should be to raise the insight of justice as what employees supposed to be fair and justice based on their personal experience and upon authorized judgment concerning appropriate ways to attain distributive results and to deal others with justice (Cropanzano, Ambrose, Greenberg, & Cropanzano, 2001). Theory of distributive justice has its roots in old theories like equity theory (Cook & Parcel, 1977) and social exchange theory (Cook & Parcel, 1977), As per these theories, employees use to assess justice in the social exchange association with their organization according to the ratio between rewards and labors spent by them at their work. Job efforts are based on widespread induction of resources like training and development, skill development, seniority level, time consumption, energy and efforts, intelligence with experience which labor required to perform work properly. whereas, Job rewards indicates to compensations and resources which employees obtain by the organization in return which includes wages, supportive, working equipment, decision freedom, number of vacations, self-esteem, social status, social position. Employee's observation from fair attitude in work has been led to point our three different dimensions of justice in the organization i.e. Distributive justice, procedural justice and interactional justice (Cropanzano et al., 2001).

**Research Model and Hypothesis:** This section presents the conceptual framework and hypothesis of the study. It also highlights the relationships between the variables in the study. The study argues that Distributive Justice mediates the relationship between Organizational Intelligence and Employees Performance.

**Figure 1: Showing Direct Relationship**



**Figure 2: Showing Mediating Relationship**



The figure 1 indicates direct relationship of organizational intelligence and employee performance, whereas, figure 2 indicates employee's performance as dependent variable, organizational intelligence as independent variables and distributive justice as mediating variable.

**Organizational Intelligence and Employee Performance:** Organizational intelligence is the joint management of both public policy and business intelligence implicit and explicit knowledge results in the creation of the organizational Intelligence(Kesti et al., 2011).In a study it is found a positive link between organizational intelligence and performance of employees, where organizational intelligence is gained by specific vision, knowledge learning, morale of employees and pressure of performance(Kesti et al., 2011). In a study it is found positive relationship at significant level between the employees performance in term of productivity and organization intelligence. The more employees feel attached and satisfy with their workplace, more productively they perform (Müller & de Castilho Jr., 2015). Now days, organizations are considering to strengthen their keenness to survive by looking into new vision. Believing that organization intelligent help to solve many issues by creating favorable atmosphere for employees, those organizations which believe in abilities and utilize their strategic actions plan to achieve goals is major factor to developed organization intelligence and employee performance in term of productivity (Karimi & Akbari, 2014).In a study it was found a positive relation between organization intelligence and employee performance by creating a healthy environment. If organizations put focus on its strategic actions plan to adapt competitive environment there will be more focus of employees to enhance productivity and satisfaction of its employees(Al-khatani & Khan, 2013).In organization sectors where employees display organization intelligence have greater effect on their performance on job , so educational institute select their productive employees to adapt administrative organization intelligence (Ahmadi, Nami, & Barvarz, 2014).

**H1:** *Organizational Intelligence positively influence Employees Performance*

**Organizational Intelligence and Distributive Justice:** Distributive justice is known to be related to the organizational activities and environment, it relates to the job position as well as job rotation, its basic aim to treat the employee Fairly(Yilmaz & Tasdan, 2009). It reflects the perception in employees for equality and it brings transparency in the organization for employee fulfillment(Mehrabi, 2012).To develop personal as well as creative awareness of employees it is very mandatory to create creative process engagement among employees and management. If there is positive atmosphere and interactional justice with excellence knowledge and logical thoughts there is positive link between organizational intelligence and distributive justice in organization(Delshad, Kolouie, & Ali, 2016).If distributive justice is practiced by members in



organization, then members will produce more positive outcome. Where upper management could enhance and motivate to promote organizational intelligence, which result to fulfill not only individual level need but also assist enhance organizational efficiency and productivity and organization should manage their human resource effectively (Delshad & Nejadheidar, 2016). Previous studies investigating organizational effectiveness mostly refer to the organizational intelligence as one of the main and operative variables on efficiency (Aghaei, Mirzamohammadi, & Shirkevand, 2013). Significant association is considered in term of organizational intelligence and distributive justice and organizational performance; likewise, among the research variables, organizational intelligence had highest correlational coefficient to organizational effectiveness (Aghaei et al., 2013).

**H2:** *Organizational Intelligence positively influence on Distributive Justice.*

**Distributive Justice and Employee Performance:** Distributive justice is the sign of the extent to which employees are treated justly by the organization and its authorities (Janssen, Lam, & Huang, 2010). In addition there are different views for distributive justice like personal outcomes, job satisfaction and organizational outcomes, it include all reward system, and job satisfaction, power and authority (Eslami & Gharakhani, 2012). In the modern age of globalization; where every organization is putting effort to maintain their employees, distributive justice and performance of employees are more considering parts. However, only those organizations are successful where all these factors are providing to employees in competitive age (Imran, Majeed, & Ayub, 2015). Distributive justice is the symbol of profit in the organization because it holds motivation and performance among the employees and it also provides help for managers to bring fair practice in the organization. It is directly proportional to the organizational efficiency as well (Jandaghi, Alimadadi, Fard, & Golverdi, 2012). Janssen et al. (2010) had supported one of the most extensively established proposition in previous studies about justice that distributive justice has very significant influence on behavior regarding particular outcomes at work for example i.e. employee performance. Organization also performs a vital role to enhance performance of employees in term of productivity by removing their turn over attitude. Al Afari & Elanain (2014) Distributive Justice also influences on the decision making and also it effects the employee performance, if it is the wide spread element in the organization. It leads to decrease performance of Employee if unfair and illegal practices held in the organization, which influence negatively on the perception of employees (Ismail, Abdul-Majid, & Joarder, 2014).

**H3:** *Distributive justice practices positively influence Employees Performance*

**The Mediating Role of Distributive Justice:** Organizational intelligence is based on collection of information, experience and perceives new problems (Simic, 2015). Distributive justice helps to establish formal constant instrument and which enhance link and mediate between organization intelligence and productivity of employees within the organization, portentous decrease or the total eradication of intentions to emotionally or physically extract from work (Douglas, 2015). Moreover, Vilar & Pablo (2013) underline that human resource management aspects "distributive justice and pay for performance" are important to consider to improve employee's performance in the organization. In the modern age of globalization; where every organization is putting effort to maintain their employees, distributive justice and performance of employees are more considering parts, mediating relationship of knowledge management between organization learning and employee performance is approved. However, only those organizations are successful where all these factors are providing to employees in competitive age (Imran et al., 2015). If distributive justice is providing to employees then an organization can gain an employee's productivity by creating knowledge and focus on long term objectives to adapt environment, because if work load is increased of employees within organization then it last bad effect towards productivity of employees and organization learning (Iqbal, 2013). Moreover, Al Afari & Elanain (2014) state that justice in Organization also performs a vital role to enhance performance of employees by removing their turn over attitude. Practicing more organizational intelligence in term of organizational learning could increase more creativity of their employees, by giving employees autonomy and creative process engagement.

**H4:** *Distributive Justice mediates the relationship between organizational intelligence and employee's performance*

### 3. Methodology

**Data Collection and Sample:** To collect the data from Pakistani nationals a personally administrated questionnaire was distributed in the state of Azad Kashmir and Punjab province of Pakistan from the employees of educational institutions. A rational attempt was made to randomize the sampling process by selecting random institutions and different locations for the data collection. A total of 113 employees responded to this survey. Some respondents refused to participate to this study due to personal inconvenience. The source of non-sampling error cannot be controlled as there is no such information available about them; the survey analysis was used because it is the most efficient methodology to gather data from huge populated segment (Bradley & Sparks, 2002).

**Measurement:** There were three constructs in the study, organizational intelligence, distributive justice and employee performance. All the constructs were measured with the statements adapted from previous studies by (Glatzeder, Goel, & von Müller, 2010), (Niehoff & Moorman, 1993) and (Wallace & De Chernatony, 2009). All the items in questionnaire which are selected from the previous researcher's work are modified according to need for present study A 5-point Likert type scale ranging from (1) strongly disagree to (5) strongly Agree.

### 4. Results

**Descriptive Results:** As noted, all the constructs were assessed using 5-point Likert scales, before starting the analysis reliability of data was checked by using SPSS-21. The reliability analysis is comprised of "Cronbach, s Alpha" that gives an accurate idea about internal data consistency (Table 2), (Smith, Murphy, & Mahoney, 2003) states that the Cronbach Alpha is best method to analyze the internal consistency of data. Table 1 shows descriptive Mean, standard deviation and Pearson Correlation. As depicted in Table 1, the means range from 3.8584 to 3.4292. The correlation illustrates the direction and strength of linear relationship between two variables, here correlation analysis was employed to assess the possible association between organizational intelligence, distributive justice and employee performance. The results of analysis show the significant correlations among all variables.

**Table 1: Results of Correlation Analysis.**

	Mean	Std. Deviation	Organizational Intelligence	Distributive Justice	Employee Performance
Organization Intelligence	3.4292	.67693	<b>1</b>	.215*	.227*
Distributive justice	3.4159	.97720	.215*	<b>1</b>	.256**
Employee Performance	3.8584	.73706	.022	.022	<b>1</b>
			.227*	.256**	.006

\* Correlation is significant at the 0.05 level (2-tailed)

\*\* Correlation is significant at the 0.01 level (2-tailed).

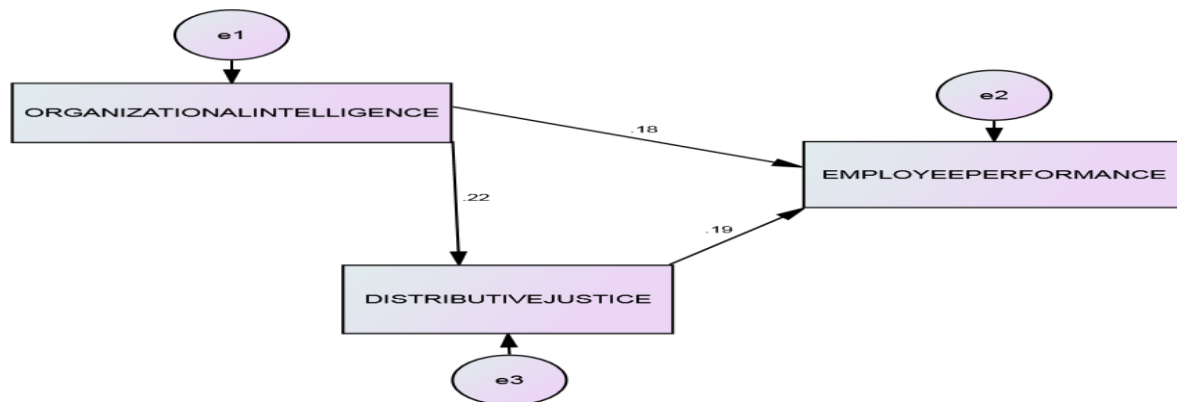
**Measurement Model:** Measurement model is drawn to carry out the Confirmatory Factor Analysis and Maximum Likelihood Method is used to calculate the parameters. Confirmatory Factor Analysis is done because established measurement scale is used in this study and reliability of the instrument describes how well the thirteen items had calculated the three constructs. CFA was performed for each of three variables on the measurement model using AMOS-23. The CFI of every construct is between 0.93 to 1.00 shows good fit, thus signifies evidence of uni-dimensionality (Aagja & Garg, 2010). The measurement properties of the five scales indicate that the factor loadings are high and statistically significant ( $p < 0.05$ ). These results satisfy the criteria for convergent validity and are actually good indicators of CFA (Salzberger, Sinkovics, & Schlegelmilch, 1999). To test the construct reliability; squared multiple correlations ( $R^2$ ) for every item and reliability is used in this study. The ( $R^2$ ) for every item ranges between 0.05 to 0.69, thus shows good reliability (Holmes-Smith, 2002), as it shows variance in variable provided by latent construct. Therefore, all

the constructs shows good fit, as well as are uni-dimensional. Moreover, Cronbach alpha values were calculated to measure reliability of the constructs and values lie between 0.70 to 0.80 are showing good indication of internal consistency and reliability, Cronbach's alpha ranges from 0 to 1.00, with values close to 1.00 indicating high consistency(Wells & Wollack, 2003).

**Table 2: Results of Confirmatory Factor Analysis (CFA) Model.**

Latent Factors	Construct/ Items Indicators	/ Factors Loadings	CFI	( R <sup>2</sup> )	Reliability Cronbach's alpha
Organizational Intelligence	OI1	0.37	0.93	0.13	0.71
	OI2	0.24		0.05	
	OI3	0.83		0.68	
	OI4	0.83		0.69	
	OI5	0.50		0.25	
	OI6	0.45		0.20	
Distributive Justice	DJ1	0.64	1.00	0.41	0.80
	DJ2	0.79		0.62	
	DJ3	0.78		0.61	
	DJ4	0.62		0.38	
Employee Performance	EP1	0.79	1.00	0.37	0.70
	EP2	0.60		0.35	
	EP3	0.61		0.61	

**Figure 3: Showing Mediating Effect**



**Structural Equation Model:** The figure 3 shows the mediating effect among the variable, structural equation model helps to measure the impact and potential of organizational intelligence and its relation to distributive justice. It further reveals the importance and role of independent variable for distributive justice and its effects on employee performance. The results of above hypothesis test based on estimates from standardized regression weights of the relationship between constructs including organizational intelligence, distributive justice and employee performance are shown in Table 3 and figure 3. The Beta value is

0.22 between organizational intelligence and distributive justice and the relationship is evident from the analysis that if there is one degree change in between organizational intelligence there would be 0.22 % change in distributive justice. Also the relationship between organizational intelligence and employee performance has Beta value 0.18 relationships between distributive justice and employee performance shows the Beta value 0.19 whereas, relationship between organizational intelligence and employee performance has Beta value 0.18. These results support our hypothesis about positive and significant mediating effect of distributive justice on relationship between organizational intelligence and employee performance.

**Table 3: Hypothesis Testing based on Standardized & Unstandardized Regression Weights**

			Estimate	S.E.	C.R.	P	Decision
Distributive Justice	<---	Organizational Intelligence	0.22	0.122	2.435	0.01	Accepted
Employee Performance	<---	Organizational Intelligence	0.18	0.101	1.995	0.04	Accepted
Employee Performance	<---	Distributive Justice	0.19	0.076	2.035	0.04	Accepted

**Discussion:** The findings of study, support theory of Performance (ToP) that also suggests that developing performance is continues journey and location of journey is reflected by performance level. Whereas Performance is collective effort of individual or by group of people (Elger, 2007). So there is need to put more focus on the knowledge and learning factors, that support the positive behavior toward employee performance. The research findings are consistent with prior literature findings. In a study it is found a positive link between organizational intelligence and performance of employees, where organizational intelligence is gained by specific vision, knowledge learning, morale of employees and pressure of performance (Kesti et al., 2011). Also, Janssen et al. (2010) had supported one of the most extensively established proposition in previous studies about justice that distributive justice has very significant influence on behavior regarding particular outcomes at work for example i.e. employee performance. It is concluded that all the hypotheses were supported and consistent results are found in this study with the prior research findings. We have found that the distributive justice mediates the relationship among organizational intelligence and employee performance and have significant and positive impact on their relationship. Distributive justice belongs to assessment of equity in both rewards and benefits, taken from organization for the return of making good efforts for the organization. Distributive justice helps to establish formal constant instrument and which enhance link and mediate between organization intelligence and performance of employees as productivity within the organization. ; Portentous decrease or the total eradication of intentions to emotionally or physically extract from work (Cropanzana, Bowen, & Gilliland, 2007). Our population sample was taken from educational institutions and previous literature supports our findings that teaching organization convert itself for the better management and empowering the people to learn and develop also use of technology to maximize the learning and production capability (Marquardt, 1996). Moreover, if there is distributive justice prevailing in organization it will results in motivation for employees and raise their efficiency .It also results in lower absenteeism and turnover rate with higher productive attitude among employees (Colquitt et al., 2001). So, if there is fairness and justice prevailing in behavior, attitude, resource and rewards allocation of managers in organization, it will influence significantly to employee performance (Greenberg, 1993). Also, One of the extensively established and prevailing proposition in organizational justice research is that distributive justice have very significant influence on specific out comes by employees at their in terms of their job satisfaction , and performance (Melkonian, Monin, Rouzies, Noorderaven, & Timmers, 2006).

## 5. Conclusion

This contemporary study underwrites to the emergent body of literature on employee performance and organizational intelligence in two ways. Primarily depiction on past research, a parsimonious model of organizational intelligence is developed and tested for educational institutions. This study suggests that one of the key determinants of employee performance is organizational intelligence .Thus, by investigating the

effect of organizational intelligence on employee performance, our study drawn-out the symbolic meaning of the existing models of employee performance e.g. (Bourlakis et al., 2014). The study suggests that organizational intelligence have a significant effect on employee performance. The contemporary research delineates how unfathomable and meaningful association can be established between employees and their performance through symbolic organizational intelligence. Thus, the study validates the verdicts of earlier studies by (Kesti et al., 2011) and most recently that of (Ahmadi et al., 2014). Furthermore, this study underwrites to the existing body of knowledge by investigate the impact of distributive justice on relationship between of organizational intelligence and employee performance .The population of this research was educational institutions of Azad Kashmir and Punjab in Pakistan. This pragmatic research is the first to inspect the impact of distributive justice on the relationship between organizational intelligence and employee performance in educational sector. The study finds that distributives justice fully mediates the effects of organizational intelligence on employee performance and therefore supports the importance of organizational intelligence for employee performance e.g.(Kesti et al., 2011).

**Recommendations:** Educational sector in Azad Kashmir has grown over the period of time and now as compare to any other region in Pakistan it has higher literacy rate of 72 percent ,whereas according to a study, Punjab is with literacy rate of 61.7percent (Rehman, Jingdong, & Hussain, 2016) .On the other hand Studies indicates that the state of Azad Kashmir is failing to deliver the quality of education, where two among five students are not properly able to read very simple story in Urdu and sixty percent of students are not able to solve simple mathematics. So government should take steps to be a facilitator of technological Capabilities in all organizations and it can only be possible if we enhance our educational system and apply research and development in organizations while creating effectual linkages between universities and industries. Systematic and assertive implementation of organizational intelligence and distributive justice practices will not only uplift the quality and standards of educational institutions but is essential for the better performance of every industry.

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## Designing a Customer Retention Framework for Telecommunication Sector

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**Abstract:** Telecommunication sector has grown over last decade while transforming behavioral intentions. New entrants are exploring these behavioral intentions to attract more customers. The aim of this study is to investigate the mediating effect of customer satisfaction in telecom industry on service quality, brand image and customer retention relationship. Furthermore, it identifies the key determinants of customer retention related to telecom service providers. A fully structured questionnaire survey was conducted to collect data from 310 mobile users. Non-probability sampling technique was adopted for data collection. Regression analysis and Sobel test technique were practiced to analyze the data. The result showed that customer satisfaction mediates the relationship between service quality, brand image and customer retention. Moreover, this study found that service quality, brand image and customer satisfaction are the strongest predictors of customer retention in telecom industry of Pakistan. Therefore, to gain customer loyalty, organizations should focus current-users and target-users by providing sterling service quality.

**Keywords:** *Service quality, Brand image, Customer satisfaction, Customer retention*

### 1. Introduction

In the recent years, telecommunication industry of Pakistan has drawn scholarly attention because of its ever changing market dynamics. As the cellular phones have been taken place as one of the most preferred household utilities with ever increasing tele-density across the board. Inclusion of new entrants has made the industry even competitive, swift, sophisticatedly motorized and service quality oriented. It has been emerged as one of the most interesting sector to study, research, investigate and forecast the future of the industry (Ali et al., 2010). The extant warfare in the industry has two dimensions apparently, one is the unfair price competition and snatching the consumers amongst the competitors is the other one. This has been quite evident in Television Commercials (TVC's) on-air by Telenor, Mobilink and U-fone. Thus, the fact is known to the companies that ultimate success is hidden somewhere in creating new customers, satisfying and retaining the existing ones. When pleased customer purchases any services, it is likely to be retained with the company for a longer time (Kouser et al., 2012). In the context of relationship marketing, customer satisfaction is often viewed as one of the central determinants of customer retention. Prior studies concluded that customer satisfaction with company's offerings is often seen as crucial for victory and long-term competitiveness. Thus, Customer retention is key of success for all organizations such as the cost of attaining a new buyer is more than keeping a relationship with an existing customer.

According to Rust & Zahorik (1993) Customer's retention leads companies towards better performance. Therefore, it is beneficial as well as less costly (Yoshida & James, 2010). An organization bears the cost of attaining new customer at initial stage of commercial relationship then retaining old customers is least expensive as compared to grabbing new ones. These satisfied customers would help in creating and propagating goodwill of the organization (Ahmad et al., 2010). The work of Reichheld (1996) summarized that brand image attracts the customers towards product and they get more satisfied resultantly. On the other hand, if brand image is positive, the perceived service quality also increases customer's satisfaction level (Parasuraman et al., 1988). With respect to Telecom, markets are characterized on the basis of high technology and short product life cycle. In this scenario, Service quality plays a very important role in building up a strong and ever lasting relationship. Service quality can be achieved by the distribution of superior service to the customers according to their lay down expectations level (Cronin & Taylor, 1992; Santos, 2003). The three essential features of service quality were quality, physical service environment quality and interaction quality. Prior studies explained these three broad dimensions of renowned construct of service quality system called SERVQUAL. SERVQUAL has five dimensions: tangibles, reliability, responsiveness, empathy and assurance (Parasuraman et al., 1988). The first measurement based on



tangibles with physical environment; the reliability corresponds with service outcome and the remaining three deal with interaction quality aspects.

Moreover, latest developments in the literature showed that service quality is precursor of the theory of customer satisfaction (Lee et al., 2000) and the relationship between loyalty and service quality is intervened by satisfaction (Caruana, 2002). Thus, loyal customers have a strong commitment to a brand, because they believe that brand is more satisfactory than the alternatives (Holland & Baker, 2001). The market place continually brings new challenges and organizations respond to these challenges by designing innovative customer retention strategies (Tsoukatos & Rand 2006). Telecom industry has many opportunities for researcher as well as business itself (Ali et al., 2010). The number of customers got increased from 68,000 to 3.3 million from 1996 to 2003. Later it turns out to be up to 88 million at the start of 2008 then raised above to 95 million by the end of 2009. At the end of 2014 it turns out 139.90 million (PTA, 2014). Telecom service providers are using various integrated marketing communication tools for satisfying customers and competing with rivals. However, it has also been observed by many researchers that all telecom operators are engaged in a price-war to capture market share. Nowadays, intense competition is prevailing among cellular organization because they are unable to retain current-users due to fast technological changes which change behavioral intentions among target customers. Services of different market players are near unable to create and maintain visible differences amongst themselves. Brand image seems to fade out gradually in telecom industry of Pakistan. In this scenario, the companies encounter to design an ever-lasting customer retention strategy providing best service quality and advocating brand image.

## 2. Literature Review

Services sector is vital in developing economies because they are becoming imperative in everyday life as behavioral intentions among customer transform due to their demand. Customer satisfaction is the assessment of the experience of interacting with a service provider up to the present time, and is used by customers to predict future experience. Satisfaction is a broad feeling that is affected by the quality of service and the product, its price and other contextual and personal factors (Sum Chau & Kao, 2009). In relationship marketing, loyalty is most important because it is a long-term commitment from the existing customers for the repurchase of services (Cavana et al., 2007). So, loyal customer often became a retain customer which is very beneficial for service organizations.

**Perceived Service Quality:** The work of Parasuraman et al. (1988) described service quality as consumer's experience about the product or services, they are using. Service quality is fastest growing area for researcher's and now necessitate additional information is required according to prospects of customers (Parasuraman et al., 1994). Therefore, services quality is the customer's overall impression of the relative advantages to the organization and it's provided services. The study of Oh (1999) summarized that service quality; customer satisfaction and customer value have momentous constructive relationship. Many researchers have computed service quality by adopting SERVQUAL scale which was designed by Parasuraman et al. (1988) and has six dimensions enclosed within effectiveness and assurances, access, price, services portfolio, reliability and tangibles (Bahia and Nantel, 2000). The work of Zeithaml (2000) described that these six dimensions impact various organizational performance such as first type of service quality directly influenced the profit, second explained offensive effects, third category demonstrate defensive effects, fourth is about the association between perceived Service quality and purchase intention, fifth dimension is about customers, profitability and segmentations and last-category clarified key service drivers of service quality.

Service quality and customers satisfaction have bi-directional association which means satisfaction has effect on service quality and service superiority influence customer pleasure and their retention in return and moves in two way direction (Lee et al., 2000). Moreover, service quality is significantly interrelated to purchase intention and customers satisfaction (Lee & Lin, 2005). The study of Henkel et al. (2006) explored that satisfied customer has positive purchase intention in future and their product usage level also increased due to higher service quality. Thus, Service quality enhances profitability through developing relationship with customer satisfaction (Yang et al., 2004). In telecom sector, future purchase intentions rely upon superior service quality. However, customer perceptions are also changing with passage of time, need,

circumstances that effect customer satisfaction (Casadesus, 2014). The work of Kim et al. (2004) summarized that service quality is as competitive weapon through which customers are more attracted because it creates better customer satisfaction and long term association. The Service quality model has a strongest influence towards predicting customer retention (Ngie & George, 2014). According to Orel & Kara (2014) loyal customer are five-times less costly as compared to a new customer because he/she is satisfied with the product/service quality. Service quality is basically a process of intangible activities which makes customer happy and leads towards retention. However, culture differences also affect the relationship between service quality and satisfaction which showed that high uncertainty avoidance customers were less satisfied as compared to low uncertainty avoidance customers. Within the limelight of telecom zone concept, the finding suggested a narrower range of acceptable outcomes for high-uncertainty avoidance cultures (Reimann et al., 2008). The work of Ahmed et al. (2010) explored that telecom industry primary need is to put all resources and energy to offer new services for the subscriber which meet their expectations and tries to satisfy customers by offering valuable services. If firms meet with actual need and expectation than customers will be converted into satisfied customers and can generate a long-term relationship (Lin & Wu, 2011). When customers feel pleasure and happy from current service quality then he/she will make more transactions. Based on literature, we proposed that:

**H<sub>1</sub>:** Better the perceived service quality, the customer's retention is more likely to be enhanced.

**Brand Image:** Brand is a design, name or figure, symbol, or the mark of the combination of all (Aaker, 1991). Moreover, Brand image is the assets of organization in this era of competition when firms struggle to gain competitive edge by providing differentiate services (Yeh, 2014). Brand image has a strong association with customer mind which result a strong relationship of brand image, customer satisfaction and future intention (Sondoh et al., 2007). Furthermore, a positive brand image could influence customer loyalty that persuades them to repurchase those product/services. From organizational perspective, higher level of corporate image leads to generate high customer retention (Christopher, 1996). The study of Davies et al. (2003) concluded that brand image has a strong effect on perceived service quality and customer satisfaction. Moreover the satisfaction also leads to the customer loyalty (Chiang & Jang, 2007). According to Ogba and Tan (2009), Telecommunication sector faces big competitive challenges i.e. customers expect more from brand name further they also concluded that perceived service quality have impact on Brand image. Moreover, Brand image is very effective to enhancing loyalty programs such as customer retention (Hanzaee & Farsani, 2011). Thus, brand Image is an evaluation between customer expectation and firm's solution and brand image lead towards customer retention (Boohene & Agyapong, 2011). To gain competitive advantage in market, essential aspects are service quality, corporate image, service value and customer satisfaction through which firms can predict different behavioral intentions and generate ever-lasting relationship with customers. Tsai (2014) concluded that brand advocacy have strong impact on customer satisfaction with influence on switching resistance and loyalty in developing a long-term relationship with customers. Mansouri and Pakia (2015) analyzed behavioral intentions in which they concluded that brand image and service quality has showed impact on customer satisfaction and commitment. Thus, Strong brand image makes customer satisfied and produce brand loyalty and through which organizations gain competitive edge and brand loyalty (Ene & Ozkaya, 2014). Based on given literature, following hypothesis is proposed:

**H<sub>2</sub>:** Likelihood of customer's retention is affected positively by the brand image.

**Customer Satisfaction:** According to Brown and Chin (2004) Customer's satisfaction relies on service quality that should meet the expectation which leads towards future intention. Moreover, satisfaction is a powerful tool for spreading optimistic word of mouth (Maxham & Netemeyer, 2002). A study conducted in online context, also found that service quality, service value and web process control leads towards high satisfaction which generates sales (Ba et al., 2008). The study of Hafeez and Hansu (2010) concluded that mobile-phone users are more fascinated to try new service providers which represent that customer satisfaction is comparatively low as compared with other sectors. Thus, in highly competitive trade zones like cellular industry; customer satisfaction is very essential for long term success. The study of Ahmad et al. (2015) summarized that reliable service, brand trust are major factors that impact customer satisfaction which generate customer loyalty among telecom users. In service industry, customer satisfaction is entirely hooked with catching new customers because when that particular customer uses that service, he/she will match expectations with actual which will generate benefit in future for organization (Khokhar et al., 2011). The main focus for organization is only on to provide differentiate, quick, reliable and distinct services which

make customer to feel proud and satisfied (Poku et al., 2014). When high quality services are provided to customers they contribute to developing a high reputation for brand image which showed positive impact on customer satisfaction (Chao et al., 2015). Moreover, service quality and price flexibility impact customer satisfaction because in developing countries people are more price sensitive as compared with brand trust (Chakraborty & Sengupta, 2014). The work of Ha (2004) concluded that integrated marketing tools have extensive influence on customer loyalty with mediating role of service quality, store image and customer satisfaction. Thus, based on given literature following hypothesis are proposed

**H<sub>3</sub>:** The relationship of brand image and customer retention is mediating through customer satisfaction.

**H<sub>4</sub>:** The relationship of perceived service quality and customer retention is mediated through customer satisfaction.

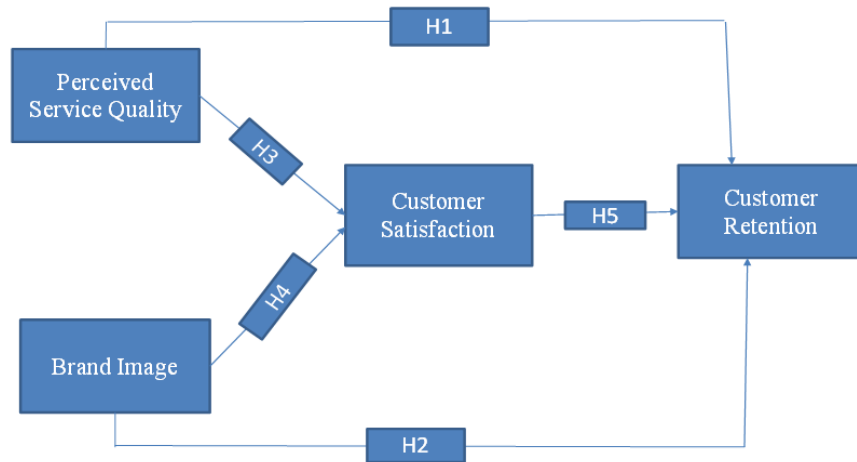
**Customer Retention:** In business world, every cellular operator tries to capture more market share for attaining a sustainable growth pattern based on the policies that focus on customer orientation. The study of Cronin et al. (2000) concluded that customer satisfaction and customer retention level can be enhanced by providing more value added services. Thus, for every organization the most vital and valuable asset is their current customers and these firms adopt different strategies to transform current customers into loyal customers. According to Sahoo et al. (2015) different people have different preferences therefore; organization must understand basic need of buyer to enjoy a long term profitable relationship with existing customers. The work of Mollah (2015) found that satisfaction level differ among different customers and brands because every customer has its own preferences that impact their loyalty. Moreover, prior studies showed that service quality, Image, fair price, complain response and perceive value has strong relationship with customer retention. Gerpott et al. (2001) conducted a research in German Mobile cellular telecommunications market and summarized that it is compulsory for an organization to satisfy current customer for long-lasting benefits. Therefore, loyalty Packages with any type of financial reward leads to customer retention (Verhoef, 2003). The work of Schiffman and Kanuk (2004) suggested that customer retention create extensive period of life-value that is more profitable opportunity for firms towards development and sustainability. In these circumstances, buyer satisfaction and faith are important causes to enhance the consumer retention (Eppie, 2007). A study in Pakistani context revealed that higher the customer satisfaction and switching cost then higher will be the customer retention (Ali et al., 2009). Telecommunication industry faces technological competitive globalization challenges. So, Sun et al. (2014) proposed that customer satisfaction, payment equity, commitment and customer's loyalty had strong impact on customer retention. A research conducted by Caroline and Elizabeth (2014) suggested that service quality and product pricing has a significant relationship with customer satisfaction that leads towards retention. The work of Fullerton (2014) concluded that service quality is a supportive activity to gain customer retention in his model commitment also play a positive mediator role among service quality and buyer retention. Therefore, we proposed following hypothesis:

**H<sub>5</sub>:** Satisfied customers are likely to be retained easily.

**Theoretical Framework:** Disconfirmation theory argues that "*satisfaction is related to the size and direction of the disconfirmation experience that occurs as a result of comparing service performance against expectations*". It is a judgment that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfillment, including levels of under- or over-fulfillment. Basically, satisfaction is the result of direct experiences with products or services, and it occurs by comparing perceptions against a standard (e.g. expectations). Prior researchers also indicated that how service was delivered which is more important than the outcome of the service process, and dissatisfaction towards the service often simply occurs when guest's perceptions do not meet their expectations. Moreover, the study of Mattila & O'Neill (2003) discussed that "*amongst the most popular satisfaction theories, its disconfirmation theory which argued that satisfaction is related to the size and direction of the disconfirmation experience that occurs as a result of comparing service performance against expectations*". Similarly, Reichheld (1996) suggested that the loyal employees and loyal investors are likely to be able to build an inventory of loyal customer, and that customer's only stay if they had a good value proposition. The framework showed in (Figure-1) comprised of four major variables that expresses the customer's retention antecedents in telecom industry. Perceived service quality and brand image are taken as antecedents which impact customer retentions. Secondly, this study has explored the relationship of perceived service quality and brand image on

customer retention which is mediated through customer satisfaction because satisfied customers always have a lifetime relationship this is called as customer's retention.

**Figure 1: Proposed framework for assessing Customer Retention**



### 3. Methodology

This study was executed with a sample of 310 cellular users in the third largest city of Pakistan, Faisalabad. For this purpose, data were collected through non-probability sampling technique by adopting convenience sampling as a data collection method. As this study followed a quantitative research approach, thus fully-structured questionnaire was utilized as a research instrument. The cellular-network users are selected from both public and private sector to get more precise respond. The data was collected from universities, banks & different shopping malls. Data were collected from 15th May 2015 to 18th July 2015. Before collecting response from cellular-network users, a pre-tested questionnaire was distributed among colleagues to check the language and context of questionnaire. Finally, 360 questionnaires were distributed to respective respondents for recording their own experience about mobile connection and its services. After refining wrongly filled questionnaires; we get 310 questionnaires with a response rate of 84.33%. This sample size is supported by Comrey & Lee (1992) which suggested a criterion about sample size: 100=poor, 200=fair, 300=good, 500=very good & 1,000 or more=excellent.

The analysis was conducted through hierarchical linear regression (HLM) and Sobel test technique which test the hypothesized relationship amongst independent, mediating and dependent variables using SPSS. All variables were checked with face validity because they are adopted from prior research. Perceived services quality (PSQ) has eight items which explore dimensions of service-quality designed and approved by Parasuraman et al. (1988). Brand image (BI) was measured by a scale developed by Aaker (1991) which consisted on eight items. Westbrook and Oliver (1987) designed a scale to measure consumer satisfaction (CS) which consisted on ten items. Lastly, items of customer retention (CR) were adopted from the work of Peighambari (2007) which consisted on six questions. Therefore, Perceived service quality (PSQ) consists of eight items and presented a cronbach's alpha of 0.779, customer satisfaction (CS) consisted on ten items by presenting a cronbach's alpha of 0.812, customer retention (CR) was measured by six items by presenting a cronbach's alpha of 0.755 and brand image (BI) consisted on six items by presenting a cronbach's alpha of 0.851. The designed questionnaire followed 5-point likert scale from "strongly-disagree to strongly-agree". Questionnaire includes two sections; first part asked about demographics and respondents service usage behavior. Second part record respondents response about Perceived service quality, customer satisfaction, customer retention and brand image.

The demographics of respondents is shown in (Table 1) which described that 85 female respondents participated in the research that was 27.4 percent while 225 males provided with their views that accounted for 72.6 percent of the total sample. Respondents from 18 to 32 years are 180 respondents which accounted for 58.1 percent, while 33 to 47 years of respondents are 127 which represent 40 percent and 48 to 62 years

of respondents are 3 which represent 1 percent. The question regarding network frequency showed that 82 Mobilink, respondents participated in the research that was 26.5 percent. 81 Ufone, respondents participated in the research that was 26.1 percent. 74 Telenor respondents participated in the research that was 23.9 percent. 34 Warid respondents participated in the research that was 10.9 percent and 40 Zong, respondents participated in the research that was 13 percent of the total sample. From the total 310 respondents; 178 people were working in the organization and doing full time job. That was 57.4 percent of sample. 49 respondents are doing half time job. They are 15.8 percent people of sample, 6 people are retired that was 1.9 percent and 9 participants are not working that was 2.9 percent of sample. On the other hand, 68 participants are students that were 21.9 percent of sample. 141 participants secured Master, M.Phil. Or PhD degrees. It means 45.5 percent respondents were holding 18 years or more education. 91 respondents were with Bachelor Degrees in their respective field of discipline with 29.6 percent of the total. 73 respondents completed college degree with 23.5 percent. Remaining 6 percent respondents completed their high school and 1 percent completed their middle school. It is important to highlight that majority of participants are well educated and having education up to graduation or more than it.

**Table 1: Demographic profile of respondents (N=310)**

<b>Gender</b>	<b>Frequency</b>	<b>Percent</b>
Male	255	72.6%
Female	85	27.4%
<b>Age</b>		
18-32	180	58.1%
33-47	127	40.0%
48-62	3	1.0%
<b>Cellular- Network User</b>		
Mobilink	82	26.5%
Ufone	81	26.2%
Telenor	72	23.3%
Warid	34	10.9%
Zong	40	13%
<b>Education/Qualification</b>		
Middle School	3	1%
High School	2	6%
College	73	23.5%
Bachelor	91	29.4%
Master & above	141	45.5%
<b>Employment</b>		
Full time job	178	57.4%
Part time job	49	15.8%
Retired	6	1.9%
Un-employed	9	2.9%
Students	68	21.9%

*Source: authors own calculations*

#### **4. Results**

The (Table 2) showed that the descriptive statistics of the predictors. First column showed the mean of the respective variables. Perceived service quality showed a mean of 4.31. The mean of brand image is 3.81. Moreover, the mean of customer satisfaction and customer retention is 4.13 and 4.13, respectively. Second column describe the standard deviation of all variables that is 0.48, 0.49, 0.46 and 0.44 for service quality, brand image customer's satisfaction and customer's retention. The correlation matrix gives bi-variate correlation and coefficient between variables pairs for all the observed variables in the research model. The coefficient of correlation shows a linear association between respective variables. Each variable is perfectly

correlated with itself and so  $r = 1$  along the diagonal of the table. Brand image is positively related with the percentage of Services Quality Correlation coefficient of  $r = 0.62$  and the significant value is less than .001. Hence we can gain confidence that there is a genuine relationship between those two variables. However, perceived service quality is having a significant relationship with brand image, customer satisfaction towards customer retention. Similarly, positive change in customer satisfaction also represents significant relationship with customer retention.

**Table 2: Correlation, mean, standard deviation of variables**

	Mean	Std. Dev	PSQ	BI	CS	CR
PSQ	4.31	0.48	1			
BI	3.81	0.49	0.624**	1		
CS	4.13	0.46	0.500**	0.730**	1	
CR	4.13	0.45	0.553**	0.699**	0.741**	1

PSQ: Perceived Service Quality; BI: Brand Image; CS: Customer Satisfaction & CR: Customer Retention

\*\* .Correlation is significant at the 0.01 level (2-tailed).

\*.Correlation is significant at the 0.05 level (2-tailed).

We use the hierarchical linear regression (HLM) analysis with SPSS. In order to test our hypothesis for that reason, we followed the steps directed by (Muller, Judd & Yzerbyt, 2005). This study tried to test our  $H_3$  and  $H_4$  by using multivariate two levels Model 4 under Sobel test with exploratory variable service quality (X), mediator customer satisfaction (M) and customer retention (Y). The Table 3 presented results for  $H_3$  which investigate the effect of service quality was shown on customer retention through customer satisfaction. The direct effect (PYX) is significant with the level of ( $p < .01$ ). The significant value of path is (PYX 0.240,  $P < .01$ ) stated that there is a significant effect of service quality on customer retention that is our regressed variable and it is confirmed  $H_1$  "Service quality positively associated with customer retention" is supported. The indirect effect of service quality (PMY\*PMX) was also significant with the value of (0.306,  $p < .01$ ). The independent and mediator variable is significant; this indicates the customer satisfaction is a partially mediator. The total effect of service quality was also significant (0.546,  $p < .01$ ) and this furnished the support for our  $H_2$ . Furthermore, the results of (Table 3) also provided significant support for  $H_3$  that customer satisfaction partially mediates the relationship of service quality and customer retention.

**Table 3: Analyses of Simple Effect (Mediator-CS & Independent- PSQ)**

Dependent variable	Mediator	Independent	$P_{MX}$	$P_{YM}$	Direct effects (PYX)	Indirect effects (PYM P <sub>MX</sub> )	Total effects (PYX + P <sub>YM</sub> P <sub>MX</sub> )
Customer retention	Customer Satisfaction	Service quality	0.455** (.045)	0.673** (.046)	.240** (.041)	0.306** (0.035)	0.546 **

Note: PMX refers to paths from service quality to the mediators (i. e., customer satisfaction), PYM refers to paths from the mediator to the outcome variable (i.e., customer retention). \* $p < .05$ ; \*\* $p < .01$

The result showed in (Table 4) predicted, the correlations between independent variables (service quality) and dependent variable (customer retention), and the mediators (customer satisfaction), showed statistically significant results. A hierarchical regression approach (Baron & Kenny, 1986) concluded that service quality has a positive relationship with customer retention ( $b = .546$ ,  $p < .01$ ). When the domain-specific mediator (customer satisfaction) is entered into the equation, the positive relationships of service quality ( $b = .240$ ,  $P < .01$ ), representative partial mediating effects for customer satisfaction ( $b = .674$ ,  $p < .01$ ) as shown (Table 4). Since the regression coefficients for service quality were decreased after the effects of customer satisfaction were partial mediation effects for customer satisfaction were supported.

**Table 4: Hierarchical Regression Result Testing Mediator (Services Quality \* Customer Satisfaction)**

	Customer Retention			
	Beta	R	R <sup>2</sup>	F
Step 1				
Service Quality	.546**	0.555	0.308	136.8**
Step 2				
Services Quality	.240**	0.771	0.595	225.591**
Customer satisfaction	.674**			
Change in R <sup>2</sup>			0.287	

N= 310 un-standardized coefficients are presented. All predictors were centered at their grand means. Independent variable is service quality Mediator is customer satisfaction and customer retention is dependent. \* p<.05; \*\* p<.01

To explore H<sub>4</sub>, we use the hierarchical linear regression (HLM) analysis with SPSS by using multivariate two levels (Model 4) under Sobel test. The results are presented in (Table 5) which illustrates that the effect of brand image was shown on customer retention through customer satisfaction. The direct effect (PYX) is significant with the level of (p<.01). The significant value of path is (PYX 0.347, P<.01) which stated that there is a significant effect of brand image on customer retention and it supported H<sub>2</sub> that “*Brand image positively associated with customer retention*”. The indirect effect of service quality (PMY\*PMX) was also significant with the value of (0.375, p<.01). The independent and mediator variable are significant while the predicative power of brand image has increased from 0.347 to 0.375 but still it showed significant results. Thus, it indicates that customer satisfaction is a partially mediator which showed support for H<sub>4</sub>.

**Table 5: Analyses of Simple Effect (Mediator-CS & Independent- BI)**

Dependent variable	Mediator	Independent	P <sub>MX</sub>	P <sub>YM</sub>	Direct effects	Indirect effects	Total effects
					(P <sub>YX</sub> )	(P <sub>YM</sub> P <sub>MX</sub> )	(P <sub>YX</sub> + P <sub>YM</sub> P <sub>MX</sub> )
Customer retention	Customer Satisfaction	Brand Image	0.69** (.037)	0.54** (.057)	.347** (.054)	0.375** (0.038)	0.722**

Note: PMX refers to paths from brand image to the mediators (i. e., customer satisfaction), PYM refers to paths from the mediator to the outcome variable (i.e., customer retention). \* p<.05; \*\*p<.01

**Table 6: Hierarchical Regression Result Testing Mediator (Brand Image\*Satisfaction)**

	Customer Retention			
	Beta	R	R <sup>2</sup>	F
Step 1				
Image	.722**	0.699	0.488	293.56**
Step 2				
Image	.347**	0.777	0.603	233.60**
Satisfaction	.540**			
Change in R <sup>2</sup>			0.115	

N= 310 un-standardized coefficients are presented. All predictors were centered at their grand means. Independent variable is Brand Image Mediator is customer satisfaction and customer retention is dependent. \* p<.05; \*\* p<.01

In the following (Table 6), the correlations between independent variables (brand image) and dependent variable (customer retention) and mediators (customer satisfaction) has showed statistically significant results. A hierarchical regression approach (Baron & Kenny, 1986) was executed which summarized that brand image has a positive relationship with customer retention (b = .722, p <.01). When the domain-specific mediator (customer satisfaction) was entered into the equation, the positive relationships of brand image (b= .347, P<.01), representative partial mediating effects of customer satisfaction (b= .540, p<.01). It concluded that, regression coefficients for brand image were decreased after the effects of customer satisfaction were

partial mediation effects for customer satisfaction was supported. Overall results predicted that brand image; service quality and customer satisfaction plays a vital role in the presence of customer retention. This study supports the work of Reichheld (1996) and Storbacka et al. (1994) which suggested that longer utilization of the product by the consumer helps to maintain longer relationship with the organization and ultimately organization retains that customer. Moreover, Bergstrom & Bresnahan (1996) discovered that better the brand image sets in the mind of customers the number of retained customer will automatically be increased. The results of H1 and H2 also endorse the outcome of Peng & Qing (2006) and Boohene & Agyapong (2011) which showed that brand image has a positive significant impact on customer retention. These all factors are like chain that is knotted with one another. The results showed evidence that high service quality and distinctive brand image will make the customers satisfied that leads towards customer retention and developing future relationship.

**Discussion:** The retained customers act as assets for service organizations because they promote positive word of mouth and guide them to create new attractive packages for new customers. Also, the work of Storbacka et al. (1994) discovered that the longer utilization of the product/service by the customer help to maintain longer relationship with the organization and ultimately get a retained customer. In telecommunication sector, majority of customer showed their experience with one service provider not more than one year which depicted that better services are needed. The service quality is the step through which a strong brand image is created in the mind of customer, which helps the customer to become eventually a loyal customer for that organization (Brown & Gulycz, 2001). When organization provides best services quality that ultimately attracts the customer which represent that there is a positive relationship between perceived service quality and customer retention. Moreover, existing customers not only ensure higher sales but also support organization in providing additional attractive product/services to new customers. Customer retention is also a vital tool for organizations to spread product knowledge that decrease marketing cost. Similarly, Fornell (1992) approved that satisfaction have a main reason of retention. The service quality increases customer satisfaction which is based on actual performance and expectation that customer perceived in its mind. Furthermore, organizations make policies to retain customers by delivering them various innovative and attractive business deals which promote customer loyalty. If customers are satisfied with the product/service then retention appears in customer's future decision-making that provide feedback about product/service experience and recommendation about upgrading (Othman et al., 2015). The findings suggested that cellular service providers must consider the importance of customer retention. Every customer is an essential asset for any organization, either public organization or private organization. Thus, Customers could be captured on the basis of services quality, better customer care that includes resolving customer complain at time, giving them special care, giving them some gifts on special events.

To provoke the competing environment in telecommunication industry, companies have to learn and build their understanding about admirable features for service quality and customer satisfaction. Customer retention is very crucial aspect in telecom sector of Pakistan. A long-term relationship is required to encourage customers for retaining them as loyal users (Stathopoulou & Balabanis, 2016). Moreover, this study identified that brand image influence consumer purchase decision through satisfaction. This research supported the finding of Etzel et al. (2001) which explored brand loyalty in service sector depends on customer retention and service quality. To determine core factors that influence mobile phone user's retention behavior are changing due to the advancement of technologies. When an organization provides proper quality services, the image of the organization is robust and obvious in the minds of customers along with other appropriate dimensions this leads towards customer satisfaction.

## 5. Conclusion

In an extensive world of competition and success, every single organization is looking forward to achieve ever-lasting relationship with customers. Organizations nowadays are continuously trying to satisfy their customers in order to retain them for time-consuming era. Customer satisfaction with the finest service quality is needed to be provided by cellular firms to maintain customer loyalty. On the other hand, brand image act as a strong predictor to retain customer in telecom sector of Pakistan because people perceive their product/service packages as best with low price-rate. So, the organization that provides services like low calling rates, SMS (short message services), internet packages like 3G and 4G could easily retain existing



customers etc. People like to avail their services that are within their budget range. Nowadays, Innovative technologies attract new customers which cause switching behavior and to retain such customer, organizations have to provide them value-added services with best service quality. Service quality has got scholarly attention during past years due to digital connectivity. The relationship between perceived service quality and customer retention provide evidence about the existence of brand awareness and consumer knowledge (Poku et al., 2014). The study found that brand image is the most important attribute for customer retention. In service sector like telecom, higher standard of service quality will lead consumer to be fully satisfied and acknowledged their brand image which improve consumer expectation. The theoretical perspective concentrates on customer retention behavior in telecommunication sector. This study provided a framework that will help marketing managers to assess customer re-purchase and retention decision based on service quality and brand image. Therefore, when telecom firms deliver high-standard service quality it boosts customer satisfaction because retaining existing customer is very cost-effective as compared with generate a new customer. Existing customers also increase sales volume by responding to additional services that were initialized by an organization. According to Lai (2004) perceived service quality enhanced customer satisfaction no matter what their gender or race. When companies target to enhance their loyalty program, they first attract their retained consumers that allow telecom firms to improve their service quality and brand image.

From managerial perspective, young adults are extremely involved in using other services of telecom firms such as (SMS, MMS and internet browsing). Therefore, marketing manager should launch those promotional activities that include such attributes for customer retention. Thus, it is mandatory for managers to provide higher service quality every-day to their customer by solving consumer complaints, giving them opportunities to participate in various brand promotional activities. Customer who is satisfied resulted in guiding organization to create a pool of preferred customers that formulate brand advocacy. Thus, consistency in brand attributes is vital for organization to retain customer. The vital features for attracting new customer are to give them service quality with low price. Results of this study proved that service quality and brand image strength customer retention. Thus, retained customer spread positive WOM which drive to gain financial benefits to telecom firms. All of these research factors are like a knitted chain, where every element played an important role in product popularity and sales. Future research could explore more in-depth factors for customer retention strategies based on brand awareness and its popularity among target customers.

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**Role Overload, Self- Efficacy, Locus of Control and Job Performance among Employees of a Printing Company in Malaysia**

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**Abstract:** Job performance becomes the most commonly discussed issue in the recent years even though many research have been conducted. As the employee is the most important asset for an organization, various factors influencing the employee performance need to be ascertained. For companies that offer services to customers, their employees' job performance could impact the loyalty of the customers and longevity of the business. However, constant dealing with high and various consumer demands, employees of printing company could easily be stressful hence requiring them to control their emotions. Therefore this study investigated the effects of role overload, self-efficacy, and locus of control towards employee job performance. A total of 67 employees of a small printing company located in Klang Valley, Malaysia had participated in the survey of this descriptive and correlational study. The results indicated that there was a strong positive relationship between self-efficacy and job performance, the meanwhile locus of control had a moderate positive relationship with job performance. This study contributes to the body of knowledge by validating the positive association of both self-efficacy and locus of control with employee job performance. The practitioners could also make reference to this study in order to properly manage the performance of their employees.

**Keywords:** *Role Overload, Self-Efficacy, Locus of control, Job Performance, Printing*

## 1. Introduction

Job performance is vital to every organization to ensure the effectiveness and productivity of both employer and employees. Therefore, it is very crucial for every organization to identify factors to improve the level of performance of employees in their daily job. According to Smith and Goddard (2002), they defined high job performance as being dependent upon the scrutinization of workloads, work time and cost-effectiveness. In addition, the literature on job performance focuses on two factors which are the importance of sustaining high job performance among employees and finding the best ways to maximize job performance (Yilmaz, 2014). This study is established when one of the authors had to undergo an internship program for about 4 months i.e. August to November 2015 at a local printing company in Klang Valley, Malaysia. During the internship program, it was known that the company wanted the employees to perform by providing incentives to the performers in their given job task. However, the company still has not been achieving the level of performance that has been targeted for. Based on the observation and preliminary informal conversation with some of the employees, it was discovered that some of the employees were feeling that they were doing too much work and some of them felt that they lack confident and high emotional exhaustion when it comes to dealing with ever demanding customers.

Therefore, this study aims to ascertain the relationship of three factors associated with employees' performance i.e. role overload, self- efficacy, and locus of control. The first factor of role overload arises when an individual has numerous social roles to carry out, at least one of which requires an excessive time commitment (Falkenberg & Monachello, 1989). The employee will feel depressed when they have to perform various job role with limited time and resources. The employees in the surveyed company having more than one role that needs to be handled at one time especially among marketing and customer service department. Sometimes the marketing department needs to back up customer service when there is a lot of urgent jobs that need to be accomplished within the due date given. According to Bakker, Schaufeli, Leiter, and Tavis(2008), work overload lead to adverse employee psychological outcomes such as anxiety, depressive symptom and also ill health. Such employees show less embedded in their work and demonstrate poor job performance (Karatepe, 2013). For the second factor, according to Wood and Bandura (1989), self-efficacy was defined as "people's beliefs in their capabilities to mobilize the motivation, cognitive resources, and courses of action needed to exercise control over events in their lives". Usually, a person with high self-efficacy turns to set a high target and performs better than others. Other researchers show that self-

efficacious frontline employees in the hospitality industry perform their jobs at elevated levels (Karatepe & Uludag, 2007). Typically the employees in the surveyed company interact with their customers by face to face as they were dealing with the services and also products. The issues arise when employee sometimes do not alert with the instruction of their manager on how to execute the task given especially for printing department. When they do not accomplish the job required, the customer will be dissatisfied with many complaints. Individuals who possess low self-efficacy will decrease their efforts and fail to execute the works (Tims, Bakker, & Derk, 2014). Therefore, low self-efficacy will reduce the job performance of employees.

For the last factor in this study was the locus of control. The concept of perceived locus of control was developed by Rotter (1960), who concludes that individual who perceived an internal locus of control believed that the result that they received whether success or failure was the result of their own action. While a person who perceived external locus of control believed that the results that they got were because of other factors such as fate or chance. There is previous research by Kalbers and Fogarty (2005), who found that person who perceives external locus of control more likely experiences stress and is more likely to perceive a stressful situation. In addition, they also concluded that external locus of control brought an impact to job stress and tends to reduce individual achievement and job performance. From discussion with the manager in the surveyed company, this problem of locus of control occurs among customer service staffs of this company, when they cannot handle the situation related to solving the customers' problem and sometimes pass the problems to other staffs on duty. This issue had given the bad perception to the customers who subscribed for the printing services at the company.

## 2. Literature Review

**Job Performance:** Job performance was very crucial to every organization especially towards the private company to maintain their reputation and also increase the profit. So, the employer or manager must give some motivation to their employee to increase the level of job performance in their job task. Viswesvaran and Ones (2000), defined job performance as actions, behavior and outcomes that employees facing which relate to the objective of the company. Job performance was found to be positively related with job satisfaction, whereas effort is assumed to be a disutility in the theory (Pugno & Depedri, 2010). Self-esteem would affect an individual personal performance. A person who believes in herself or himself can stay in harmony even though he or she has strong or weak characteristics in personality (Karatepe & Demir, 2014). According to Akgunduz (2015), he describes that a person matches with the standards, desires and the level of performance will be positively influenced by the employee's self-esteem. Therefore, if employees' work standard matches with their attitudes or behaviors, they automatically developed self-esteem.

**Role Overload:** According to Reilly (1982), as cited by Ebrahimi, Wei and Rad (2015), role overload is the degree to which a person facing him or herself to be under time pressure caused by the huge number of commitments and responsibilities in their lives. Other than that, role overload is one of the three major elements of role stress which includes role ambiguity and role conflict (Akgunduz, 2015). Moreover, at work, the amount of time required to perform a job is directly related to its level of responsibility. Individual in organization possess two important work roles which are the job-holder role and the organizational-member role. Other than that, fulfilling the organizational-member role (while also filling the job-holder role) is likely to require additional resources on the part of employees, particularly in terms of their time and energy. In case of that, employees may thus find it rather overwhelming to fulfil their organization-member role by demonstrating individual initiatives such as bringing things home to work on, staying at work after normal hours, working on their off days and others (Bolino, Valces, & Harvey, 2010).

**Self-efficacy:** Self-efficacy is dynamic in that it changes over time as the individual acquires new information and experience (Gist & Mitchell, 1992). According to Slåtten (2014), in recent years, there has been a sharp increase in the interest of the concept of creative self-efficacy and its role in explaining differences in employees' participation in innovation-related activities. Moreover, he also stated that even creative self-efficacy is a relatively new concept, it has become popular and in the literature, it is often emphasized as having an important role explaining individual differences in activities related to innovation. Therefore, an organization should have more creative employees to create organizational innovation. Next, from the other research study, Cohen and Abedallah (2015) explained that another personal variable that suggests itself as

potentially related to Organizational Citizenship Behavior (OCB) is self-efficacy. Besides, self-efficacy reflects one's ability to confront with a situation and a willingness to expand effort (Jawahar, Meurs, Ferris & Hochwarter, 2008).

**Locus of Control:** Jeloudar and Goodarzi (2012) define the locus of control as people's premise on controlling their lives. Previously there have been several research conducted on type of the locus of control and its impact on job aspects such as stress, satisfaction and organizational commitment (Martin, Thomas, Charles, Epitropaki, & McNamara, 2005). Besides, a study by Rahim (1996), also had identified the correlation between locus of control and job stress and concluded that a person with high internal locus of control believes that they can manage the stress that they faced with more effectively rather than an individual who perceived high external locus of control. Normally, an individual's type of personality may influences the level of stress occurred. Other than that, according to Judge, Erez, Bono, and Thoresen (2003), the locus of control is important element towards job satisfaction and job performance. On top of that, as one might expect, a person who perceived high internal locus of control reports a higher level of job satisfaction (Martin et al., 2005).

**Role Overload, Self- Efficacy, Locus of Control and Job Performance:** Role overload increases when there were too many roles in one situation and impossible for that individual to handle due to lack of time, energy or resources (Akgunduz, 2015). Besides, employees face constraints in performing their duties that caused by limited resources, such as in term of time and energy, and also the discrepancies that they experience between different roles, such as organizational and family roles (Beehr & Glazer, 2005). In fact, Widmer (1993) as cited by Akgunduz (2015), mentioned that role overload may cause the confident level in the organization reduces, bad interpersonal relations, low productivity, low performance level, low achievement and fewer interpersonal relationships with others. Therefore, role overload shows significant variable that gives impact to organization function and employee job performance.

**Hypothesis 1 (H<sub>1</sub>):** There is a relationship between role overloads and job performance.

The positive relationship between self-efficacy and performance has been supported by many studies. Bandura and Locke (2003) convincingly demonstrated that self-efficacy has crucial value for motivation and performance of an individual. Other than that, self-efficacy may enhance performance because a person who believes him or herself as highly efficacious will show their efforts to handle the job given with longer time as compared to others (Tims, Bakker, & Derks, 2014). Therefore, a person who has high self-efficacy will execute the job in longer time to resolve the task given.

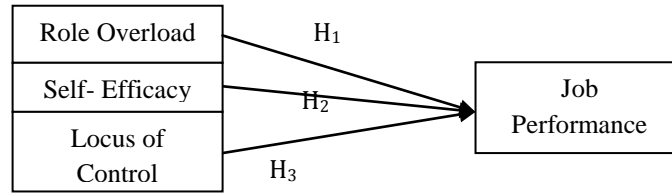
**Hypothesis 2 (H<sub>2</sub>):** There is a relationship between self-efficacy and job performance.

There have been suggested by other researchers that emphasize locus of control perceived as an important component for job performance (Judge et al., 2003). According to a study by Patten (2005), he explains that understanding the internal auditors' role structure to the personality variable of locus-of-control might be important towards their performances and satisfaction could yield valuable insights in regards to the audit reengineering efforts. In addition, Hyatt and Prawitt (2001) also reported that internal locus of control was important towards the experience levels at the more unstructured firms but not at the more structured companies. Their research suggested that if internal audit environment closely related to unstructured audit firm environments, a similar performance relation will occur in internal audit area.

**Hypothesis 3 (H<sub>3</sub>):** There is a relationship between locus of control and job performance.

**Research Framework:** Based on the literature review and all hypothesized relationship as described earlier, the research framework shows the conceptual foundation to explore and examine the relationship between all independent variables and the dependent variable. The independent variables were role overload, self- efficacy, and locus of control and the dependent variable was job performance. The researcher adopted and adapted the original research framework from previous studies by Akgunduz (2015), Cohen and Abedallah (2015), and Jeloudar and Goodarzi, (2012).

**Figure 1: Research framework of the impacts of role overload, self-efficacy, and locus of control towards job performance**



### 3. Methodology

The descriptive and correlational opted as the research design for this study. The sampling technique of this study was non-probability sampling specifically purposive sampling. This research study, therefore, utilised quota sampling to ensure that certain groups are adequately represented in the study through the assignment of a quota. A total of all 75 employees of a local printing company in Klang Valey, Malaysia were surveyed in this study. For data collection procedures, the instruments were adapted from prominent scholars as follows:-

**Table 1: Adopted Measurements for This Study**

Variables	No. of Items	Sources	Scale
Role Overload	4	(Karatepe,2013)	5 Points of Likert Scale (which
Self- Efficacy	8	(Jones, 1986)	indicates 1- Strongly Disagree,
Locus of Control	12	(Spector, 1988)	2- Disagree, 3-Neutral, 4-Agree,
Job Performance	10	(Tsai, Cheng & Chang, 2011)	5- Strongly Agree.)

### 4. Results

**Table 2: Demographic Background of Respondents**

Variables	Frequency	Percentage (%)
<b>Age</b>		
25 years old and below	57	85.1
26-30 years old	8	11.9
31-35 years old	2	3.0
36-40 years old	-	-
41 years old and above	-	-
<b>Gender</b>		
Male	37	55.2
Female	30	44.8
<b>Race</b>		
Malay	60	89.6
Chinese	-	-
Indian	-	-
Others	7	10.4
<b>Job Status</b>		
Permanent	64	95.5
Part-time	3	4.5
Contract	-	-
<b>Department</b>		
Administration	5	7.5
Customer Service	30	44.8
Graphic Design	9	13.4



Marketing	8	11.9
Printing	10	14.9
General Worker	5	7.5
<b>Years of working experience</b>		
Below 6 months	16	23.9
Below 1 year	18	26.9
1-4 years	29	43.3
5-10 years	3	4.5
Above 10 years	1	1.5

**Frequency Analysis:** In this study, there were 67 responses that were fully usable out of 75 surveyed employees (i.e. response rate of 89.3%). Based on Table 2, the respondents' age group was divided into five groups, but from the gathered data only three groups of age were obtained which were between age of 25 years old and below with frequency of 57 (85.1%) followed by age between 26 to 30 years old with the frequency of 8 (11.9%), meanwhile for age between 31 to 35 years old, the frequency was only 2 that indicated 3.0%. From the 67 respondents in this survey, the respondents comprised mainly of the male which was 37 respondents (55.2%) and 30 females (44.8%). Other than that, the race of the respondents was mostly Malay which was comprised of 60 respondents (89.6%). Then followed by other races with the frequency of 7 (10.4%). Table 2 also shows the job status of the respondents. Based on the analysis, the majority of the respondents were permanent workers with 64 in frequency (95.5%) and only 3 (4.5%) respondents were a part-time worker. The result also indicates the departments of the respondents in that company.

There were six types of a department where 30 (44.8%) of the respondents were from customer service department in the company, followed by printing department with 10 (14.9%) of the respondents. Then, 9 (13.4%) of respondents were from graphic design. For marketing department indicated 8 (11.9%) of the respondents, meanwhile for administration and general worker both of the departments showed the same frequency of 5 (7.5%) of the respondents. Next part in the demographic background is years of working experience in the company. The highest portion of the respondents found in this survey was 1 to 4 years with 29 in frequency or 43.3%. Then, followed by the respondents that were working below 1 year with frequency of 18 or 26.9%, continued by 16 (23.9%) of respondents that worked below 6 months, 3 (4.5%) of respondents who had working experiences between 5 to 10 years, and lastly only one of the respondents (1.5%) who had worked for more than 10 years.

**Reliability Analysis:** Based on Table 3, the Cronbach's alpha for self-efficacy was the highest where .845 which it was measured by 8 items and was considered as very high. The Cronbach's alpha for the locus of control that measured by 12 items was .654 where it was considered as moderate in reliability. Other than that, for role overload, the Cronbach's alpha was .693 for all measured 4 items and it also considered as moderate in reliability. Lastly, the Cronbach's alpha for job performance was .702 which it measured 10 items and it was considered as reliable. According to Sekaran and Bougie (2013), the value of Cronbach's alpha that is below 0.6 is considered poor and more than 0.6 is considered as reliable.

**Table 3: Reliability Analysis**

<b>Variables</b>	<b>Number of items</b>	<b>Items dropped</b>	<b>Cronbach's Alpha</b>
Role overload	4	-	.693
Self- efficacy	8	-	.845
Locus of control	12	-	.654
Job performance	10	-	.702

**Descriptive Analysis:** Based on Table 4, the mean for all independent variables were within 2.63 to 3.73 which in a range of medium and high. The highest mean obtained from the locus of control with (Mean=3.73, SD=.107), which means respondents emphasized more on the locus of control. Then, it followed by medium level (Mean=3.38, SD=.175) which was self-efficacy, and role overload also in the medium score which at (Mean=2.63, SD=.196). Meanwhile, for dependent variable of job performance was at a high level (Mean=3.60, SD=.116).

**Table 4: Descriptive Analysis**

Variables	Mean	Standard Deviation
Role Overload	2.63	.196
Self- Efficacy	3.38	.175
Locus of Control	3.73	.107
Job Performance	3.60	.116

**Correlation Analysis:** Based on the findings of the correlation analysis, according to Salkind (2000), the value of .500 is considered acceptable correlation. The highest correlation was obtained between self-efficacy and job performance with the value of .646. This value shows that there was a strong relationship between self-efficacy and job performance. Other than that, this variable had a significant positive correlation between self-efficacy and job performance with  $p=.000$ .

**Table 5: Correlation Analysis**

	Role Overload	Self- efficacy	Locus of control	Job Performance
Role Overload	1.00			
Self- Efficacy	.165	1.00		
Locus of Control	.171	.370**	1.00	
Job Performance	.078	.646**	.431**	1.00

Note: \*\* Correlation is significant at the 0.01 level

Then, followed by the locus of control where its value of correlation ( $r = .431$ ,  $n = 67$ ,  $p < .01$ ) where it indicated the moderate relationship between locus of control and job performance. It also showed the significant positive correlation between locus of control and job performance with  $p=.000$ . Role overload showed no relationship with job performance which the value of correlation was too weak of  $r = .078$  and  $p$ -value was not significant. This variable demonstrated no association between role overload and job performance with  $p = .264$ .

**Regression Analysis:** Based on Table 6, the  $R^2$  was .46, and the adjusted  $R^2$  was .44. The independent variables which are role overload, self-efficacy, and locus of control explained 46 percent of the variance in employee job performance. Self-efficacy and locus of control were positively and significantly affecting the dependent variable of employee job performance with the result of the unstandardized regression coefficient of  $r = .381$ ,  $p < .01$  and  $r = .251$ ,  $p < .05$  respectively. Based on the results of standardized beta coefficients, the strongest predictor of employee job performance was self-efficacy ( $r = .570$ ). The second highest contributor to employee job performance was the locus of control ( $r = .229$ ). However, the result of regression coefficient for role overload was insignificant.

**Table 6: Regression Analysis**

Independent variables:	Dependent variable: Job Performance	
	Unstandardized Coefficient	Standardized Coefficient
(constant)	1.461	
Role Overload	-0.033	-.055
Self-Efficacy	0.381**	.570
Locus of Control	0.251*	.229
F value	18.10**	
R <sup>2</sup>	0.46	
Adjusted R <sup>2</sup>	0.44	

Note: \*p<0.05, \*\*p<0.01

**Discussion:** For the first research objective in this study to investigate whether there is a relationship between role overload and job performance. Based on the results, the value of regression coefficient for role overload ( $r = -.033$ ,  $p = .564$ ). It indicates that no relationship between role overload and job performance as this factor did not show any significant relationship with the employee job performance in this company. In this research study, it has not been supported by other studies because the results show no relationship between role overload and job performance. Therefore, after conducted hypothesis testing, the hypothesis 1( $H_1$ ) in this study had been rejected and  $H_0$  has been accepted. Next objective to identify whether there is a relationship between self-efficacy and job performance. From the gathered data, the results show that self-efficacy have a significant positive relationship and strong association with the job performance among workers at this printing company with the regression coefficient value of  $r = .381$ ,  $p = .000$  and correlation value of  $r = .646$ ,  $p = .000$ . Therefore, it shows that self-efficacy had a positive effect towards employee job performance. For the hypothesis in this study, the  $H_2$  will be accepted and  $H_0$  rejected. This finding is supported by another study e.g. Yavas, Karatepe, and Babakus (2010) stated that a person with high self-efficacy sets a higher target to perform better than others. The result of this study also constant with other previous research by Tims, Bakker, and Derks (2014) who suggested that the higher levels of self-efficacy on given working day will also increase the level of performance on that day. The third research objective of this study is to study whether there is a relationship between locus of control and job performance. The finding clearly shows that locus of control has positive relationship with job performance. From the regression and correlation analysis data, it indicates that locus of control was positively and significant related to employee job performance as result of the regression coefficient of  $r = .0251$ ,  $p = .025$  as well in a moderate level of association with job performance as per correlation result of  $r = .431$ ,  $p = .000$ ). Therefore, for the third hypothesis, the  $H_3$  had been accepted and rejected the  $H_0$ . This is supported by another study e.g. Garson and Stanwyck (1997) stated that locus of control has been found to be positively associated with low-perceived stress and increased job performance. Thus, this means that employees of the studied printing company have agreed that individual locus of control had significantly and positively affected their job performance.

## 5. Recommendations and Conclusion

As a recommendation from the result of this study, the most influencer of job performance is self-efficacy. In order to enhance the ability and the capabilities towards the task given, the company can send their workers to the training, so that this will improve their self-efficacy and later increase their job performance. Next recommendation is in terms of the workers' locus of control, where the manager can make some discussion or meeting with each of the department to discuss the strong and weaknesses of each individual in their performance appraisal. When there is a good relationship between manager and employee, this will encourage them to be more motivated and improve their locus of control, thus increase their productivity as well. The other recommendation that can be taken by the organization to increase the job performance of employees, the company should give some incentive or rewards to those who had performed excellently in their job. Even the workers have work overloads, but when the company gives recognition to them they will feel appreciated and happy to work at that organization. Furthermore, as proven in this study, the role overload is not significantly associated with job performance. Indirectly this means that although the workers could be having role overload, their self-efficacy and locus of control were much more important that could affect the job performance.

For recommendation of future research, other researchers can conduct the same research study in other similar companies to identify factors that associated with job performance to enable the results of this study to be generalized in the specific industry. It is also recommended that future research about the factors influencing job performance should include more variables to get more accurate results of findings. The more variables will enhance the contribution towards the topic. The future researcher may also use another method to collect data instead of relying fully on the questionnaire. As the conclusion, this study found that there was a positive and significant relationships between self- efficacy, the locus of control and job performance, meanwhile no relationship exist between role overload and job performance. Other than that, self-efficacy shows the strongest predictor of an employee job performance and locus of control demonstrates a moderate level of association with the job performance. To summarize, the higher an employee's self-efficacy or locus of control, the higher his or her job performance will be in an organization.

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